SUMMARY REPORT

CDC Workshop
"Risk Communication Needs in a Chemical Event"

Hosted by:
The Centers for Disease Control and Prevention
National Center for Environmental Health/
Agency for Toxic Substances and Disease Registry

February 3-4, 2004
Marriott Marquis Hotel, Atlanta, GA

PREPARED FOR

THE CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR ENVIRONMENTAL HEALTH
DIVISION OF ENVIRONMENTAL HAZARDS AND HEALTH EFFECTS

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TABLE OF CONTENTS

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<u>FOREWORD</u>

A workshop entitled "Risk Communication Needs in a Chemical Event" was held February 3-4, 2004 in the Marriott Atlanta Marquis Hotel, Atlanta, Georgia. The Centers for Disease Control and Prevention (CDC), National Center for Environmental Health/Agency for Toxic Substances and Disease Registry hosted the workshop.

Lack of chemical terrorism emergency response information available to state health departments in early 2002 led to the formation of a national network of local, state, and federal health agencies, the Interstate Chemical Terrorism Conference (ICTC). The purpose of the ICTC is the timely sharing of knowledge, materials, and resources on chemical terrorism between states and agencies. ICTC is currently comprised of state and local health agency and response personnel representing 50 states, federal agencies, and other national health organizations. Working with the ICTC, CDC is supporting efforts to address the basic elements of scientific communications needs in a chemical event. A workgroup of the ICTC organized the present workshop.

The goal of the workshop was to produce (1) nationally agreed-upon templates for chemical fact sheets for first responders, medical providers, public health officials, impacted workers, and the general public and press, and a list of standard reference sources, (2) drafts of core competencies and benchmarks for these groups, with workshop comments, and (3) a work plan for dividing up tasks to fill unmet needs identified in the workshop. Public health departments and public health decision-makers can use the core competencies and benchmarks to evaluate their own programs and determine if they have a complete risk communications plan to prepare for, respond to, and recover from a chemical event. The workshop group hoped to define some risk communication capability areas where state and local agencies have needs and would like to see CDC funding, and to identify areas where they may be able to share assets and resources. CDC and other agencies may also find the workshop products useful for subsequent efforts to formulate a model risk communications plan.

> The difference is the terrorists. It's the terror, and you can play a huge role in helping to demystify this to the public and say, yes, we have dealt with these kinds of things before and yes, we are organized to do it and we are going to be able to manage it because we are experienced, and help build that confidence and help take the sting of the terror out of it. I think that's one of the really big things you can do as risk communicators.
> – John Gustafson

CDC Workshop
"Risk Communication Needs in a Chemical Event"

List of Acronyms

AAPCC   American Association of Poison Control Centers
AEGL   Acute Exposure Guideline Levels
ASPH   American Schools for Public Health
ATSDR   Agency for Toxic Substances and Disease Registry
AWWA   American Water Works Association
BT   Bioterrorism
CAMEO   Computer-Aided Management of Emergency Operations
CC/Bs   Core Competencies and Benchmarks
CDC   Centers for Disease Control and Prevention
CEPPO   Chemical Emergency Preparedness and Prevention Office
CERT   Community Emergency Response Team
CHRIS   Chemical Hazards Response Information System
CSEPP   Chemical Stockpile Emergency Preparedness Program
CST   Civil Support Team
CWAs   Chemical Warfare Agents
DHS   Department of Homeland Security
DOJ   Department of Justice
ED   Emergency Department
EHHE   Division of Environmental Hazards and Health Effects
EMS   Emergency Medical Services
EMSA   Emergency Medical Services Authority
EOC   Emergency Operations Center
EPA   United States Environmental Protection Agency
ERG   Emergency Response Guidebook
ERPGs   Emergency Response Protection Guidelines
FBI   Federal Bureau of Investigation
FEMA   Federal Emergency Management Agency
HAN   Health Alert Network
HHS   U.S. Department of Health and Human Services
IAFF   International Association of Fire Fighters
ICS   Incident Command System
ICSCs   International Chemical Safety Cards
ICTC   Interstate Chemical Terrorism Conference
ICWUC   International Chemical Workers Union Council
IDLH   Immediately Dangerous to Life or Health
IPCS   International Programme on Chemical Safety
JIC   Joint Information Center
LEPC   Local Emergency Planning Committee
MMGs   Medical Management Guidelines

MH	Message Handler
MHMIs	Managing Hazardous Material Incidents
MOU	Memorandum of Understanding
MSDSs	Material Safety Data Sheets
NAC/AEGL	National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances
NACCHO	National Association of County and City Health Officials
NCEH	National Center for Environmental Health
NIEHS	National Institute of Environmental Health Sciences
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration Office of Response and Restoration
NPHIC	National Public Health Information Coalition
NRT	National Response Team
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System
OSHA	Occupational Safety and Health Administration
OTPER	Office of Terrorism Preparedness and Emergency Response
OVC	Office for Victims of Crime
PCCs	Poison Control Centers
PEL	Permissible Exposure Limit
PIO	Public Information Officer
PPE	Personal Protective Equipment
RIDS	Response Information Data Sheets
RMP	Risk Management Plan
RRTs	Regional Response Teams
TEELs	Temporary Emergency Exposure Limits
TICs	Toxic Industrial Chemicals
TLV	Threshold Limit Values
WHO	World Health Organization
WMD	Weapons of Mass Destruction

CDC Workshop
"Risk Communication Needs in a Chemical Event"

SUMMARY REPORT

Day 1 Summary

Tuesday, February 3, 2004
8:30 am – 5:15 pm
Topics:
Introduction; Crisis and Risk Communication; CDC/ASPH Research; Panel Discussions on Audience-related and Occupational Health Core Competencies/Benchmarks and Fact Sheet Templates

Participants (in order of appearance):

- Michael R. Donnelly, Deputy, Office of Terrorism Preparedness and Emergency Response, CDC NCEH/ATSDR
- Joseph Henderson, Associate Director for BT, Office of Terrorism Preparedness and Emergency Response, CDC
- Marsha L. Vanderford, Acting Associate Director for Communications, CDC
- J. Neil Henderson, PhD, Assistant Professor, Medical Anthropologist, Department of Health Promotion Sciences, College of Public Health, University of Oklahoma
- L. Carson Henderson, PhD, MPH, Assistant Professor of Research, Department of Health Promotion Sciences, College of Public Health, University of Oklahoma

Audience-related panel members:
- Scott A. Damon, MAIA, CPH, Health Education and Communication Specialist, CDC/NCEH/EHHE
- Ken August, Deputy Director of Public Affairs, California Department of Health Services, president of the National Public Health Information Coalition (NPHIC)
- Thom W. Berry, Director, Media Relations, South Carolina Department of Health and Environmental Control
- Sandy McNeel, DVM, Research Scientist, California Department of Health Services
- Claudine McCarthy, MA, Senior Analyst, National Association of County and City Health Officials (NACCHO)
- Robert J. Geller, MD, Medical Director, Georgia Poison Control Center; Chief of Pediatrics, Grady Health System, Emory University
- G. Daniel Todd, PhD, Toxicologist, ToxFAQs Manager, CDC/NCEH/ATSDR
- Gary Noonan, Associate Director for Chemical Terrorism Response and International Health Activities, CDC/NCEH/EHHE

Overview

The morning plenary session began with a welcome from Michael Donnelly and Joseph Henderson, followed by a presentation on crisis and risk communication by Marsha Vanderford and a report on CDC/ASPH audience research by Drs. Neil and Carson Henderson. Two panel discussions on audience-related (receivers of information) core competencies/benchmarks and occupational (first responders) core competencies/benchmarks followed. In the afternoon, four breakout groups discussed:

- Audience-related core competencies/benchmarks and the public fact sheet template
- Audience-related core competencies/benchmarks and the medical provider fact sheet template
- Audience-related core competencies/benchmarks and the public health department fact sheet template
- Occupational health core competencies/benchmarks and templates

Joe Henderson stated that CDC is committed to providing assistance to state and local agencies in responding to a chemical event. He expressed concern about the weaponization of chemicals that are already common in our environment. Though many people are involved in the data gathering process, there seems to be no fusion point where all of the information comes together to allow us to create communication points for conveying a message to the public with confidence and consistency. The public needs to know that they can go to an agency, whether a state health department or CDC, to get pre-positioned information.

Crisis and Risk Communication

Marsha Vanderford, Acting Associate Director for Communications, CDC, offered to share all risk communication CDC resources, both materials and experience. We need to pool, not duplicate, resources and be consistent in our message. Citing an example of a recent anthrax event, she stressed the importance of content and context, denotation and connotation in risk communications. As we respond to the affected audiences, we must keep in mind that messages have both a content element (specific information we are trying to convey) and also a relational aspect.

People bring their own meanings to the message through connotation and the context that they've already experienced in the past. The public understands risk differently than public health officials and scientists do. Rather than looking at mortality or morbidity, as scientists and public health officials may, people consider a range of factors in their experience that cause them to think something is more or less frightening or risky than something else. The way that the public perceives a risk determines how they will react to it and create a reality that then becomes ours to deal with. People do not want conflicting messages; they want a range of information so they can make their own decisions and choices, and options to consult with someone concerning their individual circumstances.

Risk communication has been described as that which educates the public about health risks and potential dangers and situations. It can help people make decisions when there are dangers and

uncertainties. In an urgent situation, we decide that we need to use risk communication, when often we're really dealing with crisis communication, which is a communication that occurs when something has already gone wrong and we're trying to mitigate the harm.

Dr. Vanderford offered *CDCynergy for Risk and Crisis Communication*, an interactive CD-ROM-based communication tool that walks the viewer through planning for risk communication in an emergency situation. She mentioned other training resource publications and CDC's direct training in risk communication.

Questions and Comments

John Gustafson: How do we avoid being stovepiped and get to a common language and common databases, and learn from what others have done so that we don't have to relearn and re-do some things? Response: The first step is to share common information materials through our organizations, pooling resources and keeping one another informed about the resources in our agencies so that we're not being contradictory, and work toward databases where all resources can be put together. The second step is having established relationships with the groups that represent the affected audiences ahead of time, as well as the preparation and dissemination of materials ahead of time through channels, so people can access them quickly when an emergency occurs.

Lori Geckle: We should broaden the view of a risk communication event as more of a process, so that we can prepare for the unexpected event, and so that we have support from others when we need to make decisions that they don't agree with.

Unidentified: What do we do when we don't know the answer or our information is limited? How do we communicate the fact that we don't know? Response: Issue interim guidelines based on the best information we have at the time, but subject to change as the information changes; also, say this is what we know, this is what we don't know, and here's what we're doing to find out. When there is uncertainty, one of the most important things is to encourage two-way communication and create channels where that can happen. There may be some resistance and unpleasant moments, but the feedback information gained will be valuable.

Robert Geller: How do we educate and convince superiors that the ideas and facts we learn in training and from experience is the best way to go? Response: A risk communication course for executives would help.

Marie Milkovich: Is there a document that identifies which federal agencies are responsible for which type of chemical incident and what guidelines are the most preferable at various levels? Response: John Gustafson suggested CAMEO®, a system of software applications used widely to plan for and respond to chemical emergencies. It is one of the tools developed by EPA's Chemical Emergency Preparedness and Prevention Office (CEPPO) and the National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA), to assist front-line chemical emergency planners and responders. Responders can use CAMEO to access, store, and evaluate information critical for developing emergency plans. The CAMEO Chemical Information Module is composed of two linked databases: CAMEO's Chemical Database with

over 4,000 chemical records, and the Response Information Data Sheets (RIDS) of detailed information about how to respond to hazardous chemicals.

CDC/ASPH Focus Group Data

Dr. Neil Henderson and Dr. Carson Henderson reported their findings from the CDC/ASPH Cooperative Agreement Pre-Event Message Development study on the issue of chemical threat. CDC and the American Schools for Public Health have a national multi-site, community-based research project to gather and analyze information from public and emergency response professionals. The presenters' goals were to delineate knowledge, attitudes, and responses to terrorist threats, and examine CDC pre-test informational materials for satisfaction, unmet needs, and recommendations for improvement. They used a research focus group approach to produce a "cultural construct of the nature of terrorism" and behavioral reactions to it. Responses from 90 subjects were taped, transcribed, coded, and placed into categories of interest; researchers were also able to record new categories of interest and capture responses to open-ended questions.

Findings: Public

Researchers found that in pre-event knowledge there is a "veritable vacuum of information," associated with a sense of anxiety and fear. There was a sense that if a chemical threat occurred, it would result in instant annihilation of the population with nothing to be done. When a scenario was presented, there was a "this can't be happening" perspective. Anger was directed at the perpetrators of the event. The color alert system was generally known to all but understood by few; its effectiveness as a public warning tool was zero, due to vagaries of action steps.

All participants wanted more information, including specific details on the status of the attack, contaminated water, and symptoms of exposure. All felt a strong need to prepare for self protection. They considered stockpiling food, water and supplies, acquiring weapons, and retreating from dense population areas. Under protective actions, there was information sought about how to seek shelter, how to get in touch with family, and a wish for constant updates from the media.

The federal government is not trusted among special populations and there is an assumption that the government will withhold full information. They assume that adequate translations of factual information will not be made. Rural participants assume that they are of low importance to the government.

People wanted to get information from TV, newspapers and the Web, government agencies, local officials, local agency personal contacts and the local broadcast media, radio, and police scanners. Non-native English speakers asked for education and information that was not so word-intensive. Printed information is acceptable and desirable, with the grocery store checkout named as the location of choice to pick up materials.

An ideal communication method would involve a dual function – a person who is well known and respected, such as a political figure or broadcaster, coupled with someone with content expertise, not necessarily a physician – the two endorsing each other by their very presence. One

recommendation was that TV weather reporters be the spokespersons, avoiding any sensationalizing by news anchors.

Specific Action Steps – Public

- Respondents asked for information that was simply fact-based, calmly and authoritatively presented.
- Some materials are too long and wordy. More technical information is wanted, with action steps not just stated in text but in numbered steps.
- Give information about what <u>not</u> to do.
- Use graphic displays as much as possible in print material.
- Launch an information campaign on exactly where to get information.
- There are language problems due to dialects and mistrust; total information should be provided in multiple languages, easily accessed.
- Citations to the literature would indicate an extra dimension of credibility to the materials.

Findings: The Professionals

- A main fear of the first responders was public panic.
- A need for more information for one's own personal self protection as a first responder.
- A general sense of "I'm not well prepared as a professional to deal with these matters of a chemical threat." Some agencies are better prepared than others.
- A perception that full information was not getting to them.
- They see large government or the military as the main responders in a chemical threat.
- Print material from CDC was complete but not easily read.
- Best sources of information were CDC, the Internet, WebMD, DHS, and FEMA.

Specific Action Steps – Professionals

- Cross-agency coordination planning is needed.
- Additional information wanted: zones of safety, more training beyond HAZMAT, information on symptoms, isolation and evacuation of victims.
- There must be a balance between not wanting to alarm the public and giving the public the full information and facts they want.

Panel Presentations - Audience-related

Scott Damon introduced the morning panel presentations, which focused on three of the audience groups – the general public audience and its associated core competencies and benchmarks, the local health department audience, and the medical provider audience, as well as their associated templates. He asked for input toward the design or re-design of CDC's communication materials.

- Public/Press Fact Sheet Template; Audience Core Competencies and Benchmarks: Ken August, Thom Berry, Neil Henderson

- Local Public Health Fact Sheet Template; Audience Core Competencies and Benchmarks: Claudine McCarthy, Sandy McNeel

- Medical Provider Fact Sheet Template, Audience Core Competencies and Benchmarks: Robert Geller, Gary Noonan, Dan Todd

Public/Press

Ken August and Thom Berry began the discussion of the audience core competencies and benchmarks. State and local health department public information officers and communicators come to their jobs from a variety of different backgrounds, some from journalism/PR, some via public health, or by chance. Even though they acknowledge that it's very important, training for an act of terrorism is often towards the bottom of their list of activities.

Basic requirements for agencies are: (1) have a communication plan that identifies who they will be communicating with in a terrorist event, both internally and externally, ensuring that the information is updated on a regular basis; and (2) know how to communicate, having identified a team of communicators that has gone through risk communication training, determined their methods, and tested their plan. Workshop participants were asked to consider core competencies and benchmarks (CC/Bs) #10, 11, 12, 14, and 19 (see Attachment D). (All of these are discussed in Breakout Session #1 Summary.)

Ken August noted the following additional points:
- Many communications officers are "one-person shows" (point reiterated by Thom Berry)
- Professional backgrounds and expertise vary widely among communications officers
- Terrorism training has been seen as important, but not as a top priority, therefore core competencies should be minimal:
  1. Have a plan for communicating in a crisis
  2. Pre-identify both internal and external audiences
  3. Update contact information regularly
  4. Know how to communicate
  5. Have a team that is trained in risk communication
- Important questions that need to be addressed include:
  o How do communications offices communicate with special populations in a non-emergency?
  o How do they communicate in general with non-English speaking populations?
  o Do they have a plan in place? Is it tested?
- Benchmarks:
  o Risk communication training completed?
  o Rumor response mechanism in place?
  o Expertise in developing PSAs and press releases
  o Emergency protocols in place?
- Evaluation: most health departments need guidance in both the need to evaluate and how to evaluate

Thom Berry described his experiences with three chemical terrorism scenarios in South Carolina – a tanker truck spill, a train derailment, and ricin in a post office. He emphasized that these core competencies and benchmarks are important so that we all know how to deal with such events and bring value to each situation rather than merely observing. Before an incident occurs, it is important to know the people you're working with, be prepared, have a workable plan, and be able and ready to help each other. If you're going to be part of a communication team or if you're in a public health agency role, you need to be prepared, practiced, flexible, and able to respond in a very quick, coordinated manner. He suggested the concept of a joint information center (JIC), either an actual JIC located somewhere related to the incident or a virtual JIC where information is provided by many people, fed to a central source, then posted on a specific Web site or made available through one particular resource.

Thom Berry noted the following additional points:
• Part of rumor control is communicating on topics that are already in the public domain
• The media won't wait for health departments to get their messages perfect and cleared
• Flexibility is a key to responsive communication
• Need to coordinate with other stakeholders prior to any event; need to coordinate different and competing agendas
• Need plans and materials established in advance
• Need to exercise plans

Dr. Neil Henderson, referring to CC/Bs #15 and #16, pointed out that intercultural communication within communities may require different kinds of expertise that may not be within the capabilities of an agency. In community outreach, each particular agency's culture will be reflected in how they present and discuss topics, so it is a bidirectional exercise. It is labor-intensive to learn about a community's life and culture and its constant movements. He noted that, "Culture is not a set of beliefs about these groups out here that can be listed. It is a writhing knot of constantly changing values and beliefs, and that makes that target hard to hit but not impossible." To deal with intragroup variation, the agency staff needs to develop awareness, leave their desks, do research, and find out who the group leaders are. Special population groups respond best to a personal relationship ("crucial personalism") with another person, as opposed to a brochure or flyer, which is also a labor-intensive and time-consuming effort.

Dr. Neil Henderson noted the following additional points:
• This is intercultural communication, not just a passing along of facts
• Need to recognize this is a bi-directional exchange process
• Need to know gatekeepers, not just have a list of contact names; it can take months to learn community leaders; need to stay connected
• Need to avoid thinking in terms of stereotypical traits

Local Public Health

In describing the public health fact sheet template that she was instrumental in developing, Sandy McNeel asked attendees to think in a broader scope as they offer feedback on it. Fact sheets can be thought of as a checklist of necessary information, and may include some things

that are important for every single incident and some that are appropriate for a particular incident. State agencies would provide this resource for locals who are busy dealing with an event and may not have the resources to be able to manage this type of communication. She pointed out the need to agree on appropriate, credible reference sources to use in preparation of fact sheets. It is critical that this workshop identify what everyone considers as appropriate, valid, well-referenced, up-to-date sources for the technical information.

Claudine McCarthy had asked local public health department people she works with through NACCHO for feedback on the fact sheet template, core competencies and benchmarks. Some common themes that these people stated as important are:

- Pre-established relationships and lines of communication take time but need to be there. They should also be established within the business community so that there is data regarding what chemicals are present locally.
- The Incident Command System (ICS) structure should be understood, and staff should take advantage of an ICS training program.
- Tools need to be comprehensible and digestible, and easily manipulated into the form needed for the specific incident.
- There need to be different tools or different parts of tools to respond to various stages of an event.
- Everyone needs to be working from the same set of information because we are all working together on a common incident.
- The information must be easily accessible in an emergency – by Internet, or by clearly knowing who to call when a piece of information is needed quickly.
- We need a clear delineation of our roles and responsibilities in relation to other agencies.
- Can we pick and choose, as from a menu, the information we really want?
- Can we work off of an existing list that we feel is effective? If there are important differences, that's where we want to see new core competencies and benchmarks.
- Templates need to be designed so that particular information pieces can be quickly extracted by users and so that they are adaptable to different phases of an incident.
- Tools need to include "who can I call?" information for local health department use.
- Local emergency planning committees have submitted risk management plans to EPA.
- "The tools need to be responsive to actual events that people are experiencing on the ground."

Medical Provider

Dr. Robert Geller discussed poison control centers, which have dealt with risk communication on a one-to-one level for a long time. Poison centers generally know how to access specifically trained medical toxicologists skilled in recognizing, responding, and treating victims of toxic exposure. They need to have a plan for how that one person's expertise is going to be shared in a common approach; i.e., they need to have a group of people dealing with the more common concerns, since one expert may not have time to answer all questions. Information on special populations such as children, pregnant women, and the elderly should be included. It is vital to establish collaborative working relationships in which we communicate and share information

and perspectives even where there may be many valid expert information sources. Dr. Geller further pointed out that:

- Poison Control Centers are well-practiced at one-to-one risk communication.
- It is important to avoid contradictory information.
- PCCs can access medical toxicologists nationwide.
- There is a need to triage questions so that FAQs get handled expeditiously.

Dan Todd briefly addressed the evolution of information that all groups need to deal with. Because no single incident is ever going to be repeated in the same way, no particular fact sheet is ever going to serve all purposes. Fact sheets are always going to have to be massaged to become meaningful to the circumstances. He noted that first responder clinicians will be different from other clinicians in information needs, and that first responders will also want to know their own risks.

He listed examples of products that are available from CDC/ATSDR as references and resources. ToxFAQs™, fact sheets for public and press, some in Spanish, have evolved from the larger toxicological profiles and public health statements. Medical Management Guidelines (MMGs) for Acute Chemical Exposures, which evolved from a larger package called MHMIs (managing hazardous material incidents), are oriented toward medical providers. MMGs focus on chemical information for pre-hospital management and on emergency department management and patient follow-up, and have to be massaged for each specific chemical or groups of chemicals. The National Library of Medicine offers TOXNET, a cluster of reference databases on toxicology and hazardous chemicals, and a new Web site called ToxTown that speaks on a lay level about chemical exposures. They will also be developing ToxSeek and Tox to Consumers, databases on a consumer level.

Gary Noonan explained that CDC has fact sheets on chemical agents on its Web site. CDC is working on more fact sheets and more case definitions, and is open to suggestions about how to improve them or add details through update and review, based on consensus and needs of the states.

Comments from audience members included the following suggestions on how to handle rumor control:

- Use local phone company crisis management teams;
- Use TV crawlers;
- Set up a Web site immediately, if one has not already been set up.

Panel Presentations - Occupational Health

Chris Ottoson introduced the afternoon occupational health panel presentations, which focused on first responders, first receivers, contractors, occupational worksite exposures, dealing with unknown agents, worker training, and OSHA's role in worker safety and health as it relates to chemical terrorism. Quoting from the Background handout (see Attachment C), he noted that recent events have shown that terrorist events are most likely to affect the workplace. Although any worker can be impacted during a terrorist event, first responders, healthcare workers and

construction workers are most at risk of illness and injury during response and recovery efforts. Worker safety and health is a critical consideration during emergency response, but one that is often overlooked in the initial crisis and early recovery phases. The relevance and importance of occupational health in this workshop about risk communication is a critical one.

- Occupational Health Fact Sheet Template; Core Competencies and Benchmarks 17, 18, 20 and 22

Panel members (in order of appearance):

- Chris Ottoson (Moderator), CIH, Health Analyst, Oregon OSHA, Enforcement Policy Section
- Rick Niemeier, PhD, Senior Scientist, Toxicologist, NIOSH
- Susan Kess, MD, Medical Officer, CDC/ATSDR
- Rod Turpin, Chief National Health and Safety Advisor, U.S. EPA
- Chip Hughes, MPH, Director, Worker Education and Training Program, DHHS/NIH/NIEHS
- John S. Morawetz, Director, International Chemical Workers Union Council, Center for Worker Health and Safety Training
- Wendell Davis, Deputy Director, International Association of Fire Fighters HazMat Training
- John Ferris, Special Assistant, Office of the Assistant Secretary, Occupational Safety and Health Administration (OSHA)

Rick Niemeier explained how CDC began to organize its bioterrorism Web site in 1999, posting three essential documents: the ATSDR fact sheets, the MMGs, and international chemical safety data cards in several languages. The goal of the emergency response data cards was to rapidly disseminate reliable peer-reviewed information on specific chemicals, biological, radiological or physical agents that would be found in a terrorist or HAZMAT event that would pose a hazard. They were to be incorporated into the management systems of various emergency response operations for the purpose of reducing injuries, illnesses and death, and also to provide information that could be used in training and continuing education for other professions, community groups, and poison control centers. Cards were tested in focus groups for content, format, organization, and readability by emergency response personnel. The current master list of 901 chemical agents is not yet considered complete.

In a NIOSH survey of emergency responders regarding their preferred method of delivery of technical information to the field, results were: cell phone 80%, laptop computer 66%, briefings 62%, radios 56%, e-mail 50%, and CD ROM 41%. For sources of published information most frequently consulted, the NIOSH pocket guide was cited the most, or 40% of the time, with CAMEO® listed at 23% and material safety data sheets (MSDSs) at only 2%. They were also asked to rate the importance of categories of data, and almost everything on the cards had a greater than 90% response rate.

Dr. Susan Kess emphasized that hospital staff are first responders more than they are first receivers. They are the first line of defense and an extremely valuable resource, and they need to be funded as such. Hospital workers need much education and training about personal protective equipment. They need clarification as to what patient information does and does not need to be shared, as related to privacy issues. Also, there are issues involving rumors, communication with

other hospitals during an event, verification of presence of chemical agents, equipment and personnel sharing, and victim information. She suggests making these issues in hospital decision-making a core competency on any fact sheet used by hospitals. Hospitals are required to perform vulnerability assessments and prioritize for the chemicals and other hazardous agents that are known in their local communities, so the fact sheets will have to deal with those agents.

Rod Turpin showed slides of a chemical spill at Chemical Control Corporation in Elizabeth, New Jersey, in 1980, the Livingston train derailment in Livingston, Louisiana, in 1982, and the World Trade Center Disaster in New York City in 2001. As Chief National Health and Safety Advisor, he heads EPA's environmental response team that provides technical assistance in disasters. He suggested that state health departments need to be involved because EPA needs their alliance for decision making. He emphasized that the fact sheets should remind responders to think about, look for, address, and clarify unknown hazardous materials, such as heavy metals from computers or air conditioning units, wiring, or light fixtures.

Chip Hughes noted that most people agree that emergency responders need to be protected, but unfortunately, appropriate protection is figured out after the fact in many cases. Emergency responders need to know what they need to do to protect themselves, what equipment they must have, or what exercises they must engage in beforehand. Hopefully this workshop can help to create a framework that brings emergency response and public health together in some coherent way.

John Morawetz, director of the chemical workers' union training program, discussed the relevance of worker training programs to a chemical event. He reported that the union workers he deals with ask the question: is it safe to go back to work? It is necessary to figure out the appropriate terminology to tell them what is known, but be careful to not go too far and discover that there still may be a safety concern. Numerical exposure estimates should be communicated, but they are not firm measurements. We must avoid playing catch-up by doing appropriate risk communication before the event. Significant parts of the population may not be included or successful in traditional teaching or communication efforts – there are issues with English as a second language, functional literacy, and computer illiteracy. Also, people react differently even to the same level of exposure.

Wendell Davis, representing the International Association of Firefighters as their deputy director of HAZMAT training, asked for a uniformity of standards so that when firefighters are on the line, they have one set of standards to follow. Firefighters in time-critical situations also need to have information presented to them in a very brief and concise way. Firefighters need a solid base of first-responder operations training; only 40% are trained to the operations level as opposed to the awareness level. At the awareness level, a firefighter can only recognize that there is a hazardous material and initiate a phone call notifying others; a firefighter at the operations level is trained to react to the situation in a defensive and direct manner. The worker template should be concise, accurate, uniform, thoroughly peer-reviewed, and cost-effective so it is accessible to all.

John Ferris of OSHA described himself as a champion for local emergency preparedness because all emergencies and their responses are local, so the most important thing is to have the local

responders prepared. They can prepare by setting up planning committees, learning names and functions, and being familiar with the ICS. Local emergency planning sometimes does not address the safety and health of the responders themselves, which may be why so many are not trained to the optimum level. Public health departments and public information officers should learn the ICS and participate in ICS training.

Addressing such issues on the occupational level makes the messages different from those for public health and safety. At the occupational level, you are communicating within the ICS, but the public is outside the ICS, so different ways are needed to gather, prioritize, and express the information.

Chris Ottoson summarized some points to take into the breakout sessions:
- reportability of data based on varying standards
- recommendation to add special hospital concerns to the core competencies
- relevance of the special needs of the worker fact sheet

Additional Questions Raised for Discussion

Can we consider other occupations and modes of delivery besides firemen, postal, and hospital workers, and cleanup personnel? Response: though it is hard to plan for every scenario, we do have standards (OSHA) in place and practices that can be broadly applied. We could add drills and action scenarios, in order to be better ready to improvise, and we could ensure that better communication and relationships are in place, even if there is no set protocol for every instance.

What will be gained by developing and distributing a new fact sheet for workers? Would it be better to take a look at the existing fact sheets and work with them to see if they could meet the needs discussed here? The NIOSH manual, Chemical Hazards Response Information System (CHRIS) manual, Oil and Hazardous Materials Technical Assistance Data System (OHMTADS), and DOT guidebook all have good information. The 37 different federal databases listed in the resource matrix (see Attachment J) could possibly be combined into two – one for the professional and one for the public.

Breakout Groups and Summaries

Breakout groups met to discuss these issues:
- Audience-related core competencies/benchmarks and the public fact sheet template
- Audience-related core competencies/benchmarks and the medical provider fact sheet template
- Audience-related core competencies/benchmarks and the public health department fact sheet template
- Occupational health core competencies/benchmarks and templates

Facilitators of the breakout groups were asked to present summaries of their discussions (see individual breakout group session reports 1-4 for details). After these reports, the workshop was adjourned for the day.

Day 2 Summary

Wednesday, February 4, 2004
8:45 am – 3:30 pm
Topics:
Panel Discussion on Agency/Interagency Communication; Reports on Agency/Interagency Breakout Groups; Next-Steps Summary; Wrap-up

Panel members (in order of appearance):

- Paula Burgess (Moderator), MD, MPH, FACEP, Medical Officer, Emergency Medical Physician, CDC
- Robert Blake, Director of Environmental Health, DeKalb County, GA
- Ben Garrett, FBI, Laboratory Division Hazardous Materials Response Unit, Quantico, VA
- John R. Gustafson, EPA, executive director of the National Response Team
- Raymond Neutra, MD, DrPh, Chief, Division of Environmental Occupational Disease Control, California Department of Health Services
- Harald Pietz, Emergency Operations Liaison, Office of Terrorism Preparedness and Emergency Response, CDC
- Lt. Col Eric Waage, Commander, 55th Civil Support Team (supports local responders)
- James Augustine, MD, Clinical Assistant Professor, Emory University (and firefighter)

Panel discussion:

Paula Burgess introduced the panel discussion on agency/interagency communication. Items addressed by this panel included strategies for coordination and communication, organizing to produce and share information rapidly, the sharing of resources, chemical scenario risk prioritization, and law enforcement needs. The panel was assigned to focus on considering core competencies and benchmarks (CC/Bs) 1 through 14, and 21 (see Attachment D). Panel members introduced themselves and their backgrounds and offered key points or comments on the core competencies.

Blake: CC/B 9 addresses mental health concerns. This is a key issue for risk communication and includes the spectrum from anxiety to panic. His office has formed a mental health planning group and worked on tabletop exercises. Tabletop exercises are now available through the National Association of County and City Health Officials.

Garrett: CC/B 3 deals with accidental versus deliberate releases. Most of the incidents that he is familiar with begin as unknown with respect to responsible persons. Law enforcement assessment requires evidence preservation. The FBI has worked with CDC on chain-of-custody processes, and gathering forensic evidence that may be chemically or otherwise contaminated.

Gustafson: CC/B 7 addresses Incident Command. Use of the IC system is now federally mandated. One question that needs to be addressed is how the pubic health function fits into the IC. CC/Bs 2 and 12-14 address fact sheets and technical information. Chemical libraries and

databases already exist, e.g., CAMEO, and are in use by first responders. These should be taken into consideration when determining if new fact sheets need to be produced. CC/B 1 addresses agency roles. The National Response Team (NRT) and 13 regional response teams (RRTs) offer well-established interagency coordination and technical support during hazardous substance responses. Membership includes public health agencies, e.g., CDC and ATSDR. There is also a workgroup to deal with policy issues and facilitate agency coordination.

Neutra: CC/B 7 addresses the public health function as part of the incident command structure. Public health people need to know the IC structure and, most importantly, how they fit into it. CC/B 8 notes that agencies need to know how to communicate with stakeholders. You also need to have a protocol in place to address the stakeholder conflicts of interest that are unmasked by traumatic situations, e.g., labor/management. You cannot rely solely on the media to get your message out. You may need stakeholder advisory groups, newsletters, etc. CC/B 21 states that agencies involved with prolonged clean-up or follow-up studies will share accurate information in a timely way. Again, it is essential to understand your various stakeholders and the most appropriate way to communicate with them in the long-term recovery phase.

Pietz: CC/B 1 addresses interagency coordination. CC/B 6 addresses the need to be able to respond 24/7. The CDC Office of Terrorism Preparedness and Emergency Response manages the centers, offices, and programs related to terrorism preparedness at CDC and coordinates with other agencies. The CDC Director's Emergency Operations Center functions 24/7 to manage emergency response nationwide.

Waage: CC/B 3 addresses threat assessment. It is important to expand beyond a chemical-specific or product-specific approach to terrorism and think about what a terrorist would do to achieve their objective. A terror attack is really a drama staged for the true target of terrorism, the viewer. Communications is actually the strongest ingredient in counter-terrorism in denying the terrorists their objectives. If you effectively communicate and dispel panic, you have denied the terrorists their goal.

Augustine: Incident management and IC are addressed under CC/B 7. Medical incident management requires a two-way exchange of information between the field incident command, the emergency departments and the poison control centers that serve as the integrating information body. This is especially true when dealing with an unknown substance, and the large majority of incidents begin with an unidentified chemical or substance.

A major topic was how the public health function fits into the ICS structure, what assets agencies have to contribute, and how to communicate within a chain of command (CC/B #7). In his introductory comments, Raymond Neutra pointed out that it is not enough to know that we as risk communicators usually fit into the planning and intelligence box of the ICS structure. There has to be a conferring among the many experts involved in a crisis, and the organizational structure communicated to each member of the "public health functional group," as specified in CC/B #7. On the ICS system grid, there is nothing specific about where health fits in. In reality, it needs to be ready to fill in at multiple ICS slots, since it is dynamic and changes over time, and there does not seem to be one singular "box" into which it fits. This panel could decide and recommend where the health community fits in the system.

James Augustine pointed out that, in incident management, we need to recognize the importance of three pieces of information: (1) the technical information that allows us to deal with the incident at the scene; (2) the emergency and long-term healthcare information that needs to go out to the community and its providers; and (3) evacuation information that needs to be provided to the community. If we had better exchange of technical information, identification of unknown chemical substances used in incidents and the resulting emergency care could be expedited. It would be useful for the government to develop an irritant pepper spray gas detector.

Prioritization Issue

A discussion was opened on CC/B #3: How do you best determine priority of local facilities and operations? How do you look at prioritizing your local risks and balancing that with terrorist risks? Are there any specific models for doing a priority analysis?

Gustafson: Determine whether you have a local emergency planning committee (LEPC) in your area and visit it to find out what their priority concerns are. LEPCs are usually chaired by the fire department and HAZMAT. The US EPA has a database on priority facilities and chemicals, with off-site consequences of release analyses, the RMP database. This data can be obtained by written agency request to the EPA.

Neutra: Consider the whole range of possibilities that could happen rather than preparing for a specific incident. Determine the most likely occurrence and prepare for that, but be ready to improvise based on the situation.

Waage: A product or hazmat-centric plan is too confining. For example, industrial facilities usually involve an exterior release; however, chemical terrorist incidents are likely to involve interior releases, e.g. sarin in the Tokyo subway. Without confining yourself to one scenario, plan for things "on the edge of identifiability," such as non-industrial substances and homemade chemicals. The terrorist's motivation in choosing the target is an important consideration.

Augustine: Take an all-hazards preparation approach – consider possible transportation accidents, unlicensed waste handlers, the everyday workers, manufacturers, distributors, and transporters of hazardous materials, and day-to-day chemical events that occur in communities.

Pietz: Homeland Presidential Security Directive 8 has created some standards for exercises and DHS will be putting together a state exercise grant program. CDC, within NCEH and ATSDR, is also enhancing its capacity to provide guidance on creating exercises. Money will be made available to state and local communities to prepare for and conduct exercises. To prepare, agencies can look at their exercise scenarios and notice commonalities within those responses: chemical, radiological, and environmental. One of the key exercise elements should be the public communications plan, including non-English communication. Work through PIOs to develop short, quick and concise messages for TV or radio clips.

Burgess: Terrorists will purposefully try to make it very difficult for you and work around your plans. But when you write a plan for various scenarios, you are creating the framework of

structure and the communication links that, in fact, allow you to do what really is necessary in preparedness – that is, getting ready to improvise. You will know who the key persons are, and how the structure is laid out.

Rather than mandating that we must prioritize likely hazards and take a hazard-specific approach, the group agreed that we should have the choice of taking an all-hazard approach or a likely hazard approach.

Sharing Classified Information and Need-To-Know Issue

Much information on chemical weapons is classified by the military or the FBI. Department of Homeland Security (DHS) might be able to take a role in ensuring that the information has been cleared by the various government parties (Department of Defense, Department of Justice, other stakeholders) and then provide it in some way to various groups who need it.

Ben Garrett noted that the FBI's scientific working group on forensic analysis of chemical terrorism is developing a list of chemicals of concern relative to the laboratory base and will be able to provide analytical support.

What is the role of the NAC/AEGL (National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances) Committee in review and summarization of classified chemical information and evidence? Could this group make a recommendation at some kind of joint committee between CDC and the FBI and the military?

Other Comments and Suggestions by Panelists and Attendees

Databases: Sometimes our information sources confuse us and make us look like we don't know what we're doing as risk communicators. We need to synchronize data and improve the internal consistency so that in communication we don't have experts contradicting each other. We have multiple federal and non-federal databases. There needs to be a unified database or some mechanism for ensuring consistency of information.

Communications approval: (Deborah Grundmanis, Health Educator, Minnesota Department of Health) The Office of Management and Budget wants to approve all communications about any sort of emergency management. Harald Pietz replied that they are not trying to stop information from going out, just trying to make sure that there is a consistent, credible message released.

Pipelines: (Keller Thormahlen, Texas Department of Health, Houston Local Emergency Planning Committee) The possibility of terrorists striking gasoline pipelines is a big issue in the gulf coast area of Texas and Louisiana, as they are not required to have risk-management plans.

Health community and ICS: (Robert Geller, Atlanta Poison Center) The incident command flowchart doesn't say anything about where health fits in. There should be an indication on the flowchart where health fits in (planning, operations?). There needs to be a two-way communications link between the hospitals and poison centers and the incident command.

Breakout Group Summaries

Facilitators of the agency/interagency breakout groups were asked to present summaries of their discussions (see individual breakout group session reports for details).

After these reports, three additional breakout sessions were held, dealing with next steps for agency/interagency issues, core competencies, fact sheet templates and resources issues, and the interstate chemical terrorism conference itself. Summaries of these sessions were presented by the facilitators.

Summaries of Next Steps

1. Interagency (Raymond Neutra)

After a lengthy discussion about the emergence of the ICS plan at the federal level, it was agreed that there was still vigorous discussion going on between HHS and DHS concerning this topic. Who has the lead and is responsible for carrying out operations? There is no definite answer at this time.

The concept of ICS structure will be examined in order to determine where public health fits in. Is the ICS flexible enough to include public health? We must define the public health role and what it brings to the table, ironing out the federal/state/local organization issues. The current view is that it should go under the operations function, comprising the health department, public health, poison center, and medical management functions. In reality, it needs to be ready to fill in at multiple ICS slots, since it is dynamic and changes over time.

CDC could set up possible scenarios that have obvious broad public health federal/state/local implications and report how each exercise might play out. CDC could ask local agencies to build some public health implications into the scenarios so federal, state and local partners understand what public health and occupational health have to offer. The goal is to clarify some of these interrelationships, so that we can all be on the same page with our partners.

CDC could be instrumental, and perhaps take the lead, in planning a joint committee between CDC and the FBI and the military to look at military data. Perhaps the NAC/AEGL could be involved in getting military input into some of the fact sheets.

John Gustafson of the National Response Team promised to commit that team to expand the risk communication portion, and make sure that there is access to The National Response System and the Incident Command System/Unified Command policy on the NRT.org Web site.

2. Fact Sheets (Sandy McNeel)

Usefulness – Regardless of how these fact sheets are constructed, would these sheets be used rather than existing formats that agencies may not want to stop using or are mandated to use? Consensus: these are only a resource and their use is voluntary. However, there are certain

minimum elements that always need to be addressed when considering emergency communications in crisis events, and these fact sheets would include those elements.

Reference sources – Consensus is that the CDC site is everyone's first best resource, and that information taken from that site appears to be considered as credible information by the vast majority of people charged to approve information for public release. The top three resources – CDC, ATSDR and the U.S. EPA sites – tend to be the ones used if more than one site is visited. Most people do not have time available to go to more than one to three sites when developing a timely fact sheet for an emergency situation.

On CC/B #16: This should be re-worked to make it more reasonable. It is very difficult to communicate with non-English speakers, but keep the concept. International Chemical Safety Cards (ICSCs) are available in many languages (http://www.cdc.gov/niosh/ipcs/icstart.html).

On CC/B #13: Not only do we need to update references regularly, but there should also be an attempt to update the fact sheets themselves and redistribute them when there are important changes.

3. Interstate Chemical Terrorism Conference (Sharon Lee)

The interstate chemical terrorism conference, a 50-state conference group of public health people and other stakeholders, will maintain their monthly conference calls discussing chemical terrorism issues.

In the short-term, the workgroup will finalize the fact sheet template formats and link the references to each of the templates. Core competencies and benchmarks will be finished by committee, with the workshop's recommended changes. Some of the benchmarks will be costed-out so that CDC can determine what grant amounts should be. All action is contingent on the availability of funds. The workshop assignments are as follows:

- Raymond Neutra, Rick Niemeier – core competencies
- Sandy McNeel – public health department fact sheet template
- Marilyn Scott – combine worker and public/press fact sheets into one public/press fact sheet template
- Sharon Lee – medical fact sheet template
- Erik Janus – prioritize and link references to fact sheet templates
- The NIOSH first responder fact sheet template is essentially completed
- Information Ventures, Inc. – summary of discussions

Dr. Robert Geller will take the proposed memorandum of understanding (MOU) to the association of poison centers, proposing that they become a formal link with ICS and medical health response.

When recommendations are finalized, Janice Lee will take the lead in drafting a formal journal article for a peer-review publication. The article will include a summary of discussions from this workshop, plus the updated core competencies and fact sheet templates.

In the long-term, and if funding becomes available, the group suggests that CDC develop a search engine that will list reference sources by chemical, including available fact sheets, across all databases.

It was agreed that no core competencies should be deleted at this time.

Following these summaries of next steps, the workshop was adjourned.

Breakout Session Summaries

Summary of Breakout Session #1 – Public/Press Fact Sheet Template; Audience Core Competencies and Benchmarks (CC/Bs 10, 11, 12, 14, 19)

> Tuesday, February 3, 2004
> 3:00 – 4:30 pm
> Room: Imperial
> Facilitators: Ken August and Thom Berry
> Participants:

Ken August	Lori Geckle	Stan Marshall
Thom Berry	Dayna Greenberg	Jim McVay
Ross Brechner	John Gustafson	Karen Morrione
Nancy Clark	Roberta Harper	Emily Palmer
Tim Church	Dan Holcomb	Cindy Parmenter
Scott Damon	George Hull	Brook Raflo
Nancy Erickson	Cheryl Johnson	Dan Todd
Buddy Ferguson	Prince Kassim	Bonnie Widerburg
Bill Furney	Sharon Lee	

This group met to discuss the proposed Fact Sheet Template for Public/Press (see Attachment F) and the Draft Core Competencies and Benchmarks (see Attachment D), focusing on competencies and benchmarks 10, 11, 12, 14, and 19, which deal with risk communication and management activities involving the public and the media.

Referring to the five general questions for all breakout groups and the additional considerations for specific audiences (see Attachment K), this group considered whether to go forward with the proposed draft, amend it, or whether there was possibly an existing resource that does as good a job. Sharon Lee explained that the current template was developed based on ToxFAQs and other fact sheets on CDC's Bioterrorism Web site. The draft template is designed to be a tool or structure for presenting basic information, which could then be tailored to local or individual agency needs by adding the answers for the proposed questions.

General Problems Identified

The major hurdle to overcome is how to standardize the information to be provided, since there are so many valid resources and databases, 37 of which are listed in the Information Source Matrix (see Attachment J). Each group knows its own subject best, and may have a sense of ownership.

Suggestions

- Use this template as only a starting point for basic information and then tailor the information for each group.
- The groups should agree on what existing factual database(s) will be used as a standard.
- A workgroup needs to be formed to consolidate and pull together the best information.

- CDC should take the lead in filling in the template with information because (1) too many sources exist (the major problem described above) and (2) CDC is looked upon as the "first source" for information. (Some participants expressed concern over whether CDC public fact sheets are at the proper reading level, often reported as sixth-grade reading level.)
- Agencies providing information should be listed; people need to know the information is from a reliable source.
- Put the matrix into categories, prioritize or consolidate it.
- Some of the public thinks the military is a first responder, so the military needs to be included in these discussions.
- If we use this Q&A format, it should not be called a Fact Sheet.
- An effectiveness assessment tool must be developed and applied on the back end.

Comments on the Structure and Content of the Fact Sheet Template

- There is no reason to have four versions for different audiences. People will question why and how they differ. The media may assume they are getting different or less information than health agencies.

- The template currently labeled the worker fact sheet might be a better resource in its current form than what is presented as the public fact sheet.

- The objective is to give the public information, and the public must have confidence in that information. The materials used by various agencies must be uniform. Discrepancies can lead to lawsuits.

- There is a need for graphics to enhance readability. Perhaps a library of graphics can be included.

- We must consider the literacy level. Experts often cannot communicate technical information at an appropriate lay reading level.

- Instruction for filling in the information and examples should be provided to the local agencies.

- We need to consider how to present current/crisis information as compared to "evergreen" information. Should there be two fact sheets? A combined sheet could leave the first section blank to insert current information quickly just before dissemination.

- We need to examine ways to include questions that speak to people's fears.

- It is very important to have buy-in from most of the participants in the communication.

- Do **not** leave out the section on possible medical tests, as is suggested on the template sheet.

Comments on the Core Competencies and Benchmarks

Sharon Lee stated that this listing is intended for all environmental agencies, not just health departments. Whoever has a mandate or perceives that they have a mandate for risk communication and education can use it to develop their own individual plans.

On #10: Training in risk communication concepts
- Give more specifics about the best resources for risk communication training.
- Local agencies near a military installation can make contact to share risk communication training activities.

On #11: Monitor and respond to rumors
- Go further and include suggested methods, such as protocols for responding to rumors, so that agencies do not have to start from scratch.
- We also need to track rumors as well as monitor and respond to them; specifics are needed for this.
- Add "misinformation," as we need to respond to that as well, and we need a feedback loop to the media for stopping the cycle of misinformation.
- List CDC resources for monitoring rumors (CDC bioterrorism hotline)
- Local phone companies have crisis management teams that are available for assistance; keep local ties with them.

On #12: Converting data
- Protocols should describe review and approval procedures.
- Key messages could be prepared in advance to use as TV crawlers, for example, "See CDC's Web site for more information…"
- Help community leadership to prepare and practice 30-second statements and answers to anticipated questions in preparation for crises. Their first statement sets the tone.

On #14: Access to materials
- Alternate sites for media access are needed. Set up a separate Web site (xxx.info) to use as a crisis site. Have a template ready to fill in the facts and direct all questions there.
- Concerning the requirement for hardcopy access – suggest electronic only, as the hardcopy gets outdated quickly.
- Communities may not have facilities to produce streaming audio as stated in the benchmark.

On #19: Assessment – no specific comments.

Other General Comments:

- The purpose of template is to specify key basic information; in use it can be structured as is or differently—these are elements, not a verbatim script.
- Templates are a basis for how to collate, present information on 'unanticipated' agents for which no material has been pre-prepared.

- Important to consider issue of literacy.
- Important to keep fact sheets updated—approaches for this need further elucidation.
- CDC does not cover mental health as a terrorism issue in its materials.
- One communication objective: build public confidence that government can and will manage an event; fact sheets need to identify responding agencies.
- Templates need to be created with clear "current" and "evergreen" sections.
- Argument of 'multiple formats for different audiences will create a) confusion and b) suspicion on the part of media that information is being withheld' vs. 'tailoring to different audiences will reduce chance one group will misread risk information for another group as applying to them'.
- Need consistent information across fact sheets for various audiences.
- If tests, antidotes exist, need to acknowledge that while also explaining limits on availability and utility.
- Need to try to develop a feedback loop to live (TV, radio) media to correct any misinformation quickly.
- Need to have expedited clearance in place prior to an event, specifying exactly who approves what.
- Consider redundant Web sites as backups, or to provide a separate site for media.
- Need health department leadership buy-in to risk communication.
- Need for a unified federal site, even if agencies continue own sites; need for at least a unified CDC/ATSDR site.

Summary of Breakout Session #2 – Occupational Health Templates, Core Competencies and Benchmarks (CC/Bs 17, 18, 20, 22)

      Tuesday, February 3, 2004
      3:00 – 4:30 pm
      Room: Summit
      Facilitators: Rick Niemeier and Marilyn Scott
      Participants: Chris Ottoson
                      Charles Gorman
                      Keller Thormahlen
                      Pamela Kostle
                      Scott Wright
                      John Morawetz
                      Wendell Davis
                      John Ferris
                      Eric Waage

This group met to discuss the proposed Worker Fact Sheet Template and the Draft Core Competencies and Benchmarks (see Attachment D), focusing on competencies and benchmarks 17, 18, 20, and 22, which deal with risk communication needs of workers, the informational needs of target audiences, the organization and presentation of information, who makes these determinations, and the topics to be covered and their scope.

Discussion

- Focus groups wanted emergency contact numbers, evacuation distances, and how to get reference materials.
- Emergency responders need just a few paragraphs that tell them what it is, what they can and cannot do, how to contain it, and what they can do with it. They need to know explosive limits to know if they can use a radio; if they can't use a radio, they have to rely on information they have with them.
- Some areas of the country do not have cell phone coverage outside of urban areas.
- Cost of computer and communications equipment is an issue, especially for volunteers.
- Many fire departments rely on printed sources, such as the NIOSH pocket guide, which is also available on CD.
- Although there is free training available from IAFF, there is a question of how many fire departments know about it, and how to get the information to them. There is a master list of professional firefighting units, but there does not appear to be a single list of volunteer fire departments. Public health departments could also benefit from some of the same information.
- ICS training would benefit public health departments.
- Some state health departments are not part of the regional response teams along with their environmental agency counterparts, often due to state charters.
- Security issues may hamper the development of informational pieces. When the site is controlled under legal authority for investigation needs, this may represent a barrier. However, there is a guideline that public health has primacy.

- The point was made that inside the ICS, it's an occupational focus; outside the ICS, it's a public health focus.
- There is a difference in occupational health risk communication versus risk management.
- Volunteer workers are not within OSHA, but they are within ICS.
- Community emergency response teams are with the Homeland Security Citizen Corps, and volunteer resources are brought under incident command.
- In particular occupational settings that should be considered higher risk, there could be additional preplanning for workers, such as transportation (highway, public works, etc.) and railroad workers. Identify specific activities that make each audience 'higher risk' as it relates to their risk communication needs.
- The session considered whether there should be three fact sheets – for the general public, the general workforce, and emergency workers.
- Some states do not require additional training or continuing education for HAZMAT techs or HAZMAT specialists after they go through the initial stage.

During the course of discussion, the following themes emerged:

- Defining Core Competencies:
  - o Understanding the roles of your agency and other responders
  - o Linguistics are important - Language may be confusing between different disciplines ("uniform" may be interpreted as "clothing" or as "the same")
- Audiences:
  - o Agencies, e.g., State DOT
  - o Safety Officer (in a NIMS structure)
  - o Emergency Responders/ Fire, EMS, Police, Rescue, HAZMAT
  - o Emergency Workers /Skilled Support Personnel
  - o Volunteers are not necessarily protected by OSHA regulations.
  - o CERT Teams are trained, but funding is uncertain.
  - o Regular workers in an emergency setting e.g., postal workers and anthrax
  - o Public Information Officers
  - o Public messages (may contradict what is told to professionals)
- Communications equipment, data and databases:
  - o Some larger departments have a PC computer and use CDs like Cameo and Alpha databases, but not all.
  - o NIOSH will come out with a 25th anniversary edition of the NIOSH Safety Guide on CD in October 2004.
  - o Reach and Implementation - Volunteer fire departments are not in a database, and it is unclear how to reach them from a national level.
  - o Could include fact sheets in response to or as a part of incident response report forms
  - o Needs when formatting fact sheets and requirements for first responders include:
    - 3x5 durable, laminated card that can be taped to Level A suits.
    - Visible through Level A- PPE
    - Quickly referenced
    - Need to be disposable or able to be decontaminated?
- Education/Training/Building on experience:

- o Available from International Association of Fire Fighters, according to Wendell Davis. Send email to IAFF.org requesting permission from General President Shakeburger. Developed with federal grant funds, so free to departments and public health agencies. Offers HazMat videos, links training to equipment received.
  - o Department of Homeland Security has developed a Train-the-Trainer on Homeland Security.
  - o Annual refreshers for HazMat technicians and specialists are required but not universally enforced.
  - o NIMS /ICS structure and understanding
- Content of fact sheets:
  - o Public messages will be different from messages to professionals, e.g., who have PPE, training, and OSHA regulations.
  - o A worker fact sheet will address how to reduce exposure (assuming some risk).
  - o Could use a modular approach to include common characteristics on all fact sheets.
  - o Common items should include:
    - See a doctor (Call first to limit exposure to clinics).
    - Chemical hazards are not the only hazards to be aware of.
    - Hot Zones can change over time.
  - o How clean is clean? (To Be Developed?)
  - o Volunteer fire departments require low- to no-cost items.

Recommendations

- On the core competencies, add a section on hospital and incident command feedback.
- Expand 17B and focus on the three NIOSH guidelines, the public, the medical management, and the CDC guidance.
- Limit the number of templates.
- A worker fact sheet is needed. Information can be provided to meet the needs of those workers who aren't directly impacted by the exposure but would have questions about the exposure. (Note that a later decision was made to eliminate the worker fact sheet and combine it into the public/press fact sheet.)
- Recommend that the public health fact sheet be changed to include information for a public health worker on how to handle their own exposure and medical management follow up.
- The public health and the general worker fact sheets should not only have a similar format, but include similar information. All of the fact sheets should be standardized so that they have a similar appearance.
- Keep the document that was a supplement to occupational health.
- Annual updates to HAZMAT tech training are critical for states that are federally regulated. Communication is based on having adequate training.

Summary of Breakout Session #3 – Medical Provider Fact Sheet Template; Audience Core Competencies and Benchmarks (CC/Bs 10, 11, 12, 14, 19)

> Tuesday, February 3, 2004
> 3:00 – 4:30 pm
> Room: Madrid
> Facilitators: Rob Geller and Paula Burgess
> Participants: Elaine Krueger
> Rick Spiller
> Suzanne White
> Kelly Klein
> Raymond Neutra
> Martin Belson
> James Augustine
> Lee McGoodwin
> Alan Becker

This group primarily met to discuss the proposed medical provider template (see Attachment G). CC/Bs 10-14 and 19 (see Attachment D) were also discussed as time permitted, with a focus on risk communication and management activities involving medical providers. They considered the content and format of the templates, the issue of reliable reference sources, and organizing to produce fact sheets rapidly.

Fact Sheet Discussion

The audience needs to be defined for fact sheets. Emergency department physicians need brief acute management information (no longer than 2 pages; 1 page is preferable). Longer-term care information, e.g., delayed effects and long-term sequelae, needs to be separated out. This more detailed information could be included on subsequent pages of a fact sheet that would be passed along with a patient chart. Pre-hospital fact sheets, e.g., EMT, need a less technical language, compared to physician fact sheets. Given the time constraints, the group elected to focus on the emergency department physician fact sheet.

Field decontamination and field personal protective equipment (PPE) were discussed versus hospital decontamination/PPE on the fact sheet. It was decided that having both on the same fact sheet would potentially be confusing. Field personnel will be working under the instructions of the incident command (IC). Medical personnel responding to the scene should follow IC instructions.

Recommendations

The categories recommended for the emergency department (ED) fact sheet template were: 1) recognition and triage (very brief differential); 2) personal protective equipment for health care; 3) patient decontamination at the hospital (contamination containment); 4) key medical management points, including diagnosis, treatment, doses, etc.; 5) patient monitoring

(observation); 6) patient disposition criteria; and 7) reporting (including with whom to report and coordinate).

The group recommends using the ED fact sheet template as a one- to two-pager that could be placed at the beginning of more comprehensive medical care information, e.g., the Agency for Toxic Substances and Disease Registry (ATSDR) Medical Management Guidelines (MMGs). Recommend that when ATSDR revises their existing MMGs, they develop an ED fact sheet using this template.

Many incidents involve unknowns. While the task of this breakout group is to discuss the template for chemical-specific fact sheets, it also recommended that chief complaint-based fact sheets be developed, e.g., respiratory.

Other Discussion

Special populations need to be considered in risk communication and in the longer medical care fact sheet. Special populations that need to be specifically addressed in the longer document could include the immuno-compromised, homeless, pediatric, pregnant/breast feeding, visually or hearing impaired, and those with other chronic disabilities.

There needs to be a list of non-online resources for when the Internet or phone resources such as poison centers are not available during an event. These would include textbooks and CD-ROMs. There also needs to be a rank order or recommendation concerning which of the online resources on the list are most likely to be useful sources for writing a fact sheet.

Information flow needs to be a two-way street between hospitals, poison centers, and the incident command. Otherwise, the medical facilities and the IC are both uninformed as to what the other is seeing/assuming about the chemical/agent in question.

Summary of Breakout Session #4 – Local Public Health Department Fact Sheet Template, Audience Core Competencies and Benchmarks (CC/Bs 10, 11, 12, 14, 19)
> Tuesday, February 3, 2004
> 3:00 – 4:30 pm
> Room: Trinidad
> Facilitators: Erik R. Janus and Sandy McNeel
> Participants: Megan Weil
> Tracy Hammon
> Robert Blake
> Marie Milkovich
> Janice Lee
> Claudine McCarthy
> Deborah Grundmanis
> Michael Donnelly
> Glenn Paulson
> Ben Garrett
> Alan Becker

This group met to discuss the proposed Local Public Health Fact Sheet Template (see Attachment H) and the Draft Core Competencies and Benchmarks (see Attachment D), focusing on competencies and benchmarks 10, 11, 12, 14, and 19, which deal with risk communication and management activities involving public health departments. They discussed the roles and responsibilities of local public health departments versus state public health departments.

General Challenges Identified

The three major themes in the discussion were the importance of maintaining intra-state and inter-state relationships, knowing resources within your state, and roles and responsibilities. The group would like to see a greater clarification within the core competencies and benchmarks of the roles of states versus local health departments. The discussion included whether decisions regarding state and local roles should be made from the top-down or bottom-up, or whether each state should make such decisions individually, in consultation with their local government agency partners.

- Challenges include varying organization levels for many state and local health departments, with some states acting as local health departments, some states overseeing them, and some states operating in a "hands-off" manner. It is hard to globally define state and local public health roles as some states have no local health departments (they are satellites of the state public health agency) while others have them, but they are independent of the state.
- Federal funds go to state governments, but not to local governments, local public health departments, and hospitals. Concern was expressed that local health and environmental agencies not be saddled with another set of goals and objectives without the additional financial and personnel resources to address them.
- Local health departments may lack the resources in-house or may not be equipped to deal with some of the core competencies.

- Interactions between public health departments and environmental health agencies need to be strengthened and personal contacts made to facilitate communications during an emergency event.
- Local public health departments can help their states address competencies and benchmarks; their input is needed.
- Experience gained from natural disaster response and other preparedness activities should inform planning for chemical release events, both intentional and unintentional.
- There is an important potential role of the poison control centers/poison information systems in detecting as well as squelching rumors.
- Interactions and networking between the poison control centers/poison information systems and state and local health and environmental protection agencies should be strengthened.

Items Discussed

- How to improve the local public health agency fact sheet template.
- The need for basic awareness training for public health workers, hospital workers, EMS workers, and industries.
- Columbia University's document prepared for CDC, titled "Bioterrorism and Emergency Readiness Competencies for all Public Health Workers."
- The need to identify agencies that should be primary sources of information on specific topics.
- The information source matrix and Chemical Stockpile Emergency Preparedness Program (CSEPP) materials. CSEPP is an Army program that exists where domestic chemical weapon stockpiles exist.
- The possibility of using conference calls when there is an emergent event so that every state and major municipalities could have accurate, current information and tap into available resources.
- Resources that are already available and used for fire department response to chemical incidents, including the emergency response guide book (orange book) and the CAMEO® program.
- The mechanism developed for local nuclear power plant FEMA-graded exercises to identify and handle rumors, with local health department personnel answering hotlines and passing the rumor on to the public information officers, who then can bring the rumor and the correct information to the media.
- Avoiding the creation of stand-alone models for terrorism response, but instead incorporating existing radioactive incident response and natural disaster response plans to create an all hazards approach to disaster preparedness.

During the course of discussion, the following themes emerged:

- Defining Core Competencies:
    - Ability to build intrastate relationships
    - Awareness of other's roles in an all-hazard response plan

- o Multiple pressures on state and local organizations to achieve differently worded competencies can lead to resistance.
  - o Linguistics: Use common definitions: e.g., "decon" of humans, or of water, food, land.
  - o Need instructions on how to use core competencies, e.g., for which audiences are these appropriate, how states should use them now, no need to wait for funding.
- Audiences
  - o Interdisciplinary audiences - need to work with existing, varied organizational structures
  - o Between health and environmental departments and poison control centers
  - o Among local, state and federal health and environmental agencies
  - o Among work by different educational systems and universities
  - o Personal networking provides leadership to resolve known gaps
  - o Among Public Information Officers (PIOs)
  - o With Local Emergency Planning Committees (LEPCs)
  - o Be aware of multiple roles local staff play.
  - o Building local capacity—need to get the funds to "where the rubber meets the road"
- Communications equipment, data and databases:
  - o Need ability to measure baseline knowledge and abilities
  - o Work with Toxic Release Inventories held by LEPC or local emergency manager to know and anticipate chemical threats in your backyard and near potential targets
  - o How are situational chemical threats identified, quantified, and controlled? e.g., transportation systems /railroad cars put incompatible chemicals next to each other.
  - o Need a multi-state conference call bridge system that allows experts to talk to each other (e.g., ICTC, CDC, California Conference Call System, with major municipalities).
  - o Need redundant communications systems. For agencies communicating with the public: television, radio, web, local police patrol vehicles with public address systems. For governmental intra-agency communication: e-mail, web-based systems such as CDC's Epi-X, cell or satellite phones, ASTHO network.
- Education/Training/Building on experience:
  - o Use the mature mechanisms to learn operations and logistics – e.g., Radiological Emergency Preparedness program.
  - o CSET Oak Ridge Emergency Broadcast System 1992, developed messages to use in chemical emergencies with Army depot chemical stockpiles (These are posted. A search within www.ornl.gov with the following terms: "emergency broadcast system, chemicals" returned many items to review.)

Suggestions

Core Competencies and Benchmarks
- It would be very useful to provide some kind of instruction or guidance on how the core competencies/benchmarks and other tools should be used.
- Local public health department input should be included to help states achieve some of the core competencies.

- Because local agencies have limited funding and competing priorities, these core competencies and benchmarks should be incorporated into other programs that may have already developed similar competencies and benchmarks.

Local Public Health Department Fact Sheet Template
- Recommend that local public health department fact sheet template include information on environmental cleanup, protection of animal feed, protection of drinking water systems and food systems, and preserving evidence.
- It might be desirable to add sections on environmental decontamination and local industrial hazards to the local public health department fact sheet template.

Information Resource Matrix
- Combining some of the resources matrix with relevant sections of the fact sheet templates could reduce the amount of time it takes to fill out the templates.
- Titles of categories on the matrix should match topic categories on the fact sheet templates to facilitate finding appropriate information.

General Recommendations
- In the case of fixed site industrial facilities that may be vulnerable to terrorist attack, state health departments should develop fact sheets on the relevant chemicals in advance and provide these to local health agencies.
- Redundancy of communication methods during an emergency is essential. Agencies should consider including in their plans more than one method for critical information delivery (e.g., radio, TV, Web site, police patrol vehicles equipped with loud-speakers).
- Local or regional poison control centers could be used to help identify and control rumors.
- A multi-state conference-call bridge system should be developed so that it could be activated in an emergency that might become multi-state and multi-jurisdictional.

Summary of Breakout Session #5 – Core Competencies 8, 9, and 21 – Mental Health and Social Disruption, Stakeholders

> Wednesday, February 4, 2004
> 10:30 am – 12:00 pm
> Room: Imperial
> Facilitator: Sharon Lee
> Participants: unidentified
> > Roberta Harper
> > Kathy Skipper

This group met to discuss Core Competencies 8, 9, and 21, which deal with risk communication activities involving the public, mental health, and stakeholders.

Communication is the key to counterterrorism, since the real target of terrorism is the viewer. As Americans watch what is going on, even if they are not in the vicinity of the incident, their mental health and well-being must be addressed. In such cases, the primary role may very well be communications as opposed to gathering data or scientific information.

Comments on the Core Competencies and Benchmarks

On #8: Communicating with stakeholders

- Communication is the key to the public health response, but in the planning and the funding of most public health departments, communications is not focused on as much as crisis activities. We must have involvement, two-way communication, and a relationship or partnership with stakeholders, in order to build a level of trust.

- Do not wait for an emergency to establish relationships. Establishing and maintaining relationships in advance is complex, labor-intensive, and requires heavy resources. It must be done in a systematic way.

- Evaluation can be a weak link. We need to find out what people perceive during an event or an exercise as to what needs to be corrected, and get that information back from everybody quickly, then determine what steps need to be taken sooner and use that mechanism to keep exchanging information. A social evaluation modality such as Perseus was suggested.

- What sort of environmental training should risk communications staff receive to understand environmental and health effects, such as routes of exposure and potential symptoms? The risk communication staff must represent the people they are talking to, have credibility, not use jargon, and have a basic understanding of environmental issues. Should this be included as a core competency?

- You cannot rely upon the media to get your message across; sometimes you have to have special methods such as newsletters.

- Use more focus groups as a tool for evaluating our materials and fact sheets for format, clarity, and content, then share the lessons learned. This may be a faster method than surveys. Monterey Institute of International Studies was suggested as a resource.

- We need to recognize our ability to influence the media as a stakeholder and to follow up on misinformation and correct rumors.

- People with a mental health/social support background need to get more involved in this part of communication during a crisis.

- Recruit social scientists into the Epidemic Intelligence Service to observe and use a template to evaluate during a disaster.

- CDC research on communication products should be more widely shared than it has been.

- The National Association of Social Workers is in the process of publishing a comprehensive textbook on the psychological and social effects of disasters.

On #9: Reducing anxiety; mental health

- Anxiety and stress: How do we, in our risk communication materials, address up front not only the mental health aspects of verified exposures, but fears of possible exposure and secondary contamination? Recommend a CDC conference regarding this topic.

- Social disruptions: Can we pre-plan to deal with not just emergencies but unemployment, food shortages, and disrupted transportation and phone lines? Official and volunteer organizations could set up "direct lifelines" such as phone banks and psychological counseling. One-to-one communication with a trusted local individual may be the best way to respond to public anxiety and prevent panic.

- Best practices: State and local health departments could provide examples of instances where they had to respond to worries of the public, what techniques were used, and what was learned.

- Panic: We must debunk the myth that the public is going to panic; it could cause communicators to slow down efforts if they think coming out early with information will worsen the situation. We need to pull together studies that examine the question of how much panic actually occurs in these situations.

- Fast response: We need to give people concrete information such as facts or statistics as quickly as possible to reduce their fears.

- Worried well: Produce a fact sheet on "worried well" syndrome, which could help people to understand that they may be subject to this phenomenon when they may not have realized that it existed.

On #21: Long-term cleanup and sharing information

- If we commit to a long-term follow-up study after a disaster, we must get it started as soon as possible, include all stakeholders, and guarantee respondents that we will get the registry information (new illnesses, treatments, options) right back out to them.

- CDC could develop a set of criteria for what sorts of incidents might warrant long-term follow-up, because there would have to be significant resources put into the effort.

- "Satisfaction" may never happen, but some rational evaluation instrument for measuring outcome and process variables could be developed. We need to ensure that the two-way exchange of information is occurring and questions are being answered. It could more accurately be called stakeholder maintenance. There will always be people who are dissatisfied, but we can carefully get the degree of dissatisfaction down to a tolerable level.

Other General Comments:

- How can materials address not only actual exposure but also fear of exposure or the mistaken belief one has been exposed (which leads to excessive demand on screening services)?
- Message Handler (MH) communication responses:
  - "We know this is scary. Here's someone to talk to: (phone number)."
  - Use community voluntary resources.
  - Use phone banks.
  - Make the threat less exotic, more familiar: get information out early and often, including before any event (public panic is a myth).
- Need to be aware of general stress aspect of mental health in a crisis.
- Need to be aware of fear of secondary contamination.
- Need to develop guidelines to determine which incidents need long-term communication follow-up.
- Post-event, need to maintain good links to medical community to follow any long-term mental health consequences (e.g., lingering worried-well concerns).
- Need to recognize media is a stakeholder with whom relationships need to be built.
- Argument: Communicators are representatives of the public, therefore it is best for them not to have much scientific expertise: 'it's an advantage to be naïve' versus 'it would be helpful for communication staff to have a basic understanding of environmental and public health issues'.
- Evaluation:
  - CDC should do an RFA for evaluation of how mental health aspects of CT communication are handled.
  - Need to develop an evaluation template that could be included in preplanning and easily implemented in a crisis.
  - Need to evaluate materials both in a 'real' post-event situation and in a pre-event scenario.
  - Evaluation questions include impression, clarity, format, etc.
  - In an event what the media uses is a sort of evaluation measure.

Summary of Breakout Session #6 – Occupational Next Steps
     Wednesday, February 4, 2004
     10:30 am – 12:00 pm
     Room: Summit
     Facilitators: Rick Niemeier and Marilyn Scott
     Participants: Rick Niemeier
                         Chris Ottoson
                         Charles Gorman
                         Keller Thormahlen
                         Pamela Kostle
                         Scott Wright
                         John Ferris
                         John Morawetz
                         Marilyn Scott

This group met to discuss the next steps in risk communication for workers, focusing on the worker fact sheet. The main discussion centered on whether there should be a separate worker fact sheet, and if so, what should be included on the sheet.

Items Discussed

- The need for a worker fact sheet, an emergency response fact sheet, and a general public fact sheet.
- Whether the information on the worker fact sheet and the public fact sheet should be the same.
- Does the emergency responder fact sheet provide the data needed to address other worker populations coming to the incident, and are their audience needs different?
- Communication strategies for the work site versus the public.
- The exposed public versus the non-exposed public.
- Populations at higher risk compared to the general population.
- Use of a graphic representation of dose response.
- Workers who cross into controlled access areas or hazard zones are targets for risk communication via fact sheets, while the public fact sheet is for the general public and workers not in the controlled access areas.
- How to update the worker fact sheet over time during response and recovery.

Further Comments and Discussion

- Who is responsible for certifying that the workplace is safe to re-enter? Re-entry issues would differ depending on the worksite.
- What would the states do with this information, how could it be taken back to state and federal agencies, and what can be done to implement it?
- If these new forms are mandated or come down as a recommendation, especially with grants, implementation might be enhanced.

- The problem of cooperation between agencies and the need to leave primacy and territoriality at the door, in order to work together.
- Funding as a major issue, particularly at the local level.
- The next step should be to build in a Department of Homeland Security component.

Conclusions

- A separate worker fact sheet should not be created. The public fact sheet could contain the elements of the worker fact sheet that are currently missing. The emergency response fact sheet contains the information that the incident commander would need for workers on site, and the incident commander could use this information, in conjunction with other potentially responsible parties, to determine whether it is safe to re-enter the site. The emergency medical guidelines would contain the information that is needed for workers who are on site at the time of the incident and are injured or experience potentially harmful health effects. A final decision was made to eliminate the worker fact sheet and combine it into the public/press fact sheet.

- For the second round of grants coming from CDC, there should be some very explicit indication for the use of these templates in developing information.

- In future grants, CDC should include more strongly the importance of addressing occupational safety and health for the whole spectrum of people involved in these incidents.

- The Department of Homeland Security should recognize these templates for public emergency responders and medical management guidelines so that the message is maintained across various jurisdictions.

- Those who are responsible for training should begin using these templates in their efforts so that individuals will become familiar with the templates, the format, and the information contained in them.

Summary of Breakout Session #7 – Core Competencies 1, 3, and 7 (Scenarios)
Wednesday, February 4, 2004
10:30 am – 12:00 pm
Room: Madrid
Facilitators: Erik Janus and Deborah Grundmanis
Participants: Alan Becker   Paula Burgess
                Martin Belson   Ben Garrett
                Stanley Marshall   Prince Kassim
                George Hull   Janice Lee
                Lynn Lewis   Brook Raflo
                Eric Waage   Megan Weil

This group met to discuss Core Competencies 1, 3, and 7 (Scenarios). The discussions focused on the ICS structure, and public health and risk prioritization.

Discussion

On #1: Relationships and Partnerships

- Emergency management exists at the state and county level. Local health departments should be in touch with their county emergency management resources. Public health Departments, both local and state, need to become familiar with the FBI WMD Coordinator, which exist in every state.
- Friction can develop between public health and law enforcement in terms of evidence collection and providing information to the public. Training and exercises can help the groups work together. A prime difference is that when there is a release, public health is very interested in knowing where it has gone, while law enforcement is very interested in knowing where it came from.
- Collaboration between public health and the Civil Support Teams (CSTs) is based on bridging the gap between first responders and the laboratory. The CSTs do field science and presumptive identifications, while public health laboratories perform accurate tests to verify identification.
- Coordination of public health personnel with other emergency response groups and law enforcement at the scene of an incident.
- Partnership of local emergency planning committees (LEPCs) and public health.

On #3: Priority

- Core competency #3 states that agencies will give priority to local facilities and operations that may be subject to accidental disasters. Discussion considered a hazardous materials-centric versus terrorist-centric approach to addressing this core competency. Local exercise scenarios can be based on incidents that have happened in the area during the last few years, prioritizing local facilities and operations.

On #7: Incident Command System

- Two actual incidents (at Shanksville, Pennsylvania, and Boca Raton, Florida) served as examples of how the FBI incident command system functioned, including safety officers, liaison with medical and emergency response people in the community, finance, and logistics. Public health can fit into a number of slots, depending on the situation, either through a liaison or under Operations on the scene. It is important to note that the role of public health in an ICS structure can change over the course of an incident and response to an incident. So not only does public health have to be prepared to fill in at multiple slots, but these can change over time.
- Public information distribution depends on the plan in that jurisdiction. It is generally coordinated through the EOC rather than ICS.
- In the ICS, jurisdiction and authority can affect who becomes the incident commander. If two or more federal agencies are involved, the secretary of Homeland Security is the incident commander and can delegate incident command. In many situations, public safety needs are most important, and local fire or police chiefs have the resources and retain incident command.
- If you can't rule out accidental versus intentional, then every event will be taken as intentional until demonstrated otherwise.
- A presidential directive explicitly stated that security of chemical facilities will be in the jurisdiction of the Department of Homeland Security.
- The ASTM Committee E54 on Homeland Security Applications deals with setting standards on how to perform a threat/vulnerability analysis; a subcommittee deals with how to handle threat analyses for communities.
- Local groups often try to do too much with a training exercise. Guidance has been developed through DOJ on exercise evaluation design, and the fire management group at FEMA has trainings available for civilians and public health departments.

Summary of Breakout Session #8 – Core Competencies 1, 4, 5, and 6 – Partnering, Surge Capacity (Hospitals, Poison Control Centers)

Wednesday, February 4, 2004
10:30 am – 12:00 pm
Room: Trinidad
Facilitator: Sandy McNeel
Participants: Robert Geller
Kelly Klein
Sharon Lee
Lee McGoodwin
Harald Pietz
Rick Spiller
Suzanne White

This group met to discuss Core Competencies 1, 4, 5, and 6, which deal with partnerships and surge capacity.

Comments and Discussion Items – Poison Control Centers

- For chemical events, poison centers have the toxicology information and the expertise. Poison control centers have credibility, and the phone number is one of the most widely known numbers to the public.
- Poison control centers are the front line for calls and concerns about health problems, including BT and radiation events. They are available 24/7. Poison control is performing a vital public health function, and that needs to be recognized and funded appropriately through BT mechanisms, CDC, or states.
- Poison control centers have information on where certain lab tests can be done, hospital surge capacity, the capability of local health care facilities, analytical capabilities, antidote capability, and special services capability. They know how to facilitate services such as antidotes when necessary.
- Communication with poison control centers and hospitals has to get built into some kind of administrative organizational chart.
- In an emergency, people behave with the patterns they practice every day and they may rely on their personal contacts. The use of personal contacts at poison control centers versus having an established structure for contact between public health and poison control was discussed.
- Developing and funding a structure for coordinating contact between poison control centers and state or local public health in advance, since calls from physicians, the ER, and the public will go to poison control centers.
- Tabletop exercises often don't include poison centers.
- Cross-training doesn't happen unless you train with people on a routine basis.
- There is a need for an established link between incident command and hospitals or health care providers. The discussion considered whether all such communication should go through poison control or public health.

- Incident command needs to involve the appropriate medical structure at all phases of response in which there is human exposure or potential human exposure. If notified, the poison control center should then notify neighborhood hospitals and the health department.
- The safety officer could be responsible for establishing two-way communication directly with health function, which should be poison control. The way to present this is that it is the responsibility of poison control to reduce the risk of poisoning, while it is the safety officer's responsibility to protect colleagues and prevent poisoning.
- If the poison center is contacted from an incident scene, the poison center would be responsible for health department contact and for contacting involved health care facilities and other involved health agencies.
- The incident command structure will not change without some formal agency action. There is a need for a public health box under the site safety officer or planning, and there has to be one person in the incident command structure as a contact.

Summary of Breakout Session #9 – Interagency, Federal Next Steps
    Wednesday, February 4, 2004
    1:45 – 3:00 pm
    Room: Imperial
    Facilitator: Raymond Neutra
    Participants: various

This group discussed the emergence of a national incident command plan at the federal level. There is still vigorous ongoing discussion between HHS and DHS concerning this subject.

A scenario was introduced to illustrate a situation that would be particularly challenging for ICS. In the scenario, Osama bin Laden issues an announcement that a toy that will be introduced to the American market has been powdered with ricin, as a Christmas gift to the children of the United States of America. The scenario would involve risk communication, epidemiology, the scare to the public, the threat to the toy market, occupational implications, the Coast Guard, the EPA, the FBI, incident command at the federal level, and all states. Group participants were unsure how the system would work and what the outcome would be.

An action item for CDC could be to possibly use several such scenarios with broad public health implications, federal implications, state and local implications, and investigate how this would work in the federal ICS.

Another topic discussed was that exercises tend to be driven by fire chiefs and others who deal with terrorist events; but either (1) the public health implications are ignored, or (2) they are the type of event that does not have much of a public health implication. CDC could ask those who control the exercises to let CDC build some public health implications into these scenarios so that federal partners can understand what public health and occupational health have to offer. Alternately, CDC could say that they would like to run some high-level tabletop exercises that would help to clarify some of these interrelationships and get themselves on the "intellectual radar map" of their partners.

Summary of Breakout Session #10 – Fact Sheets and the Information Matrix Reference Source: Next Steps

        Wednesday, February 3, 2004
        1:45 – 3:00 pm
        Room: Summit
        Facilitator: Sandy McNeel
        Participants: Thom Berry
                        Emily Palmer
                        Karen Morrione
                        and others

Participants discussed the fact sheet templates and the matrix of reference resources, as well as the associated core competencies and benchmarks. They indicated that some states might be willing to follow a suggested format but would want to develop their own fact sheets, while other states have an existing format and might be unwilling to change. There was discussion of how state and local agencies will work together to determine who is meeting the competencies, and which competencies apply to the state or the local level.

Comments and Suggestions

- Some participants indicated that the benchmark for core competency #16 concerning language may be too specific, or may not be useful in meeting the goal in an emergency.
- The public health fact sheet group suggested that some sort of instructions and a reference list should be added to the core competencies. The reference list could be better linked to the individual boxes in the fact sheet.
- Getting the various centers in CDC to agree to a single format for public fact sheets for the BT site has been difficult, since it is now handling not just chemical emergencies but also biological agents and other types of natural disaster situations.
- Some templates have been tested for usability by the actual end users; the emergency response cards scored well in focus groups, but other templates did not do as well.
- A standard approach in selecting sources of information is to go to the CDC site first, then ATSDR and EPA. From the state perspective, when there is an incident, they gather information and put it together as quickly as possible.
- There is a need for distribution systems to make sure local officials know what is available and where to get it; these would differ from state to state.
- There needs to be some kind of time frame or schedule for all of the information to be reviewed and updated.
- Resources mentioned include the Water Security Risk Communication Workshop from EPA and AWWA, the Red Cross publication for natural disasters, information from the University of Florida for the agricultural community, and the International Programme on Chemical Safety (IPCS) from the World Health Organization.
- The WHO IPCS cards that are available through the NIOSH Web site are written in 23 languages, with more coming, and they are all done in the same format. The IPCS program is interested in directing these cards more toward emergency response. The cards currently lack information on personal protective equipment, decontamination, and several other topics.

- If fact sheets are available in electronic format, they can be tailored to the situation without the need to recreate all of the information. But in the case of the WHO IPCS cards, the arrangement is that national standards could be added, but the basics of the card cannot be changed.
- Agricultural extension material is listed on the NIOSH site as part of the National Agricultural Safety Database.
- The FBI and the Emergency Response database maintains a listing of about 100 agents, prioritized by relative risk, that could be made available. Ultimately the list will include 200 to 300 other agents.
- The Department of Homeland Security is working with the National Fire Academy and the National Information Officers Association to develop materials.
- One size does not fit all: different states will adapt templates to their own purposes.
- Many states have their own templates which they feel are most appropriate for their audiences.
- Templates are a) for those with no template; and b) a guidance for putting together material quickly—they identify elements to include.
- Templates tell CDC what the ICTC thinks needs to be in anyone's fact sheets, including CDC's.
- More audience research is needed.
- States use CDC, ATSDR, and EPA as credible and readily approved reference sources in developing materials, particular in crisis situations.
- Procedure for regular updating of fact sheets is needed at all levels.
- It is unlikely fact sheets will be translated into all languages in any given jurisdiction prior to a crisis.
- Local officials need to be aware of what template the state health department is using.
- Fire fighters need: 1) small, short, easily digestible documents; and 2) quick and easy to use databases.

Summary of Breakout Session #11 – Interstate Chemical Terrorism Conference (ICTC) Next Steps

> Wednesday, February 4, 2004
> 1:45 – 3:00 pm
> Room: Trinidad
> Facilitator: Sharon Lee
> Participants: Alan Becker
> Janice Lee
> Sharon Lee
> Stan Marshall
> Marilyn Scott

This group met to determine next steps in completing the fact sheet templates, core competencies and benchmarks, and assign responsibilities for remaining tasks.

Items Discussed

- Assign responsibility for finishing fact sheet templates and core competencies and benchmarks.
- Final versions of fact sheets and core competencies and benchmarks are to be sent to IVI to include in the summary report.
- Look at mechanisms for how the states can begin using the core competencies and benchmarks.
- Determine where the health box should be placed on the ICS. The health box could go under the Operations function, which would include the public health function, the poison center, and medical management function; keep in mind that the health community needs to be ready to fill in at multiple ICS slots.
- Find a federal representative willing to promote the public/local health department box on the ICS.
- Proposal for health box and incident command will be taken by CDC to DHS.
- First responder fact sheet (NIOSH) is done but recommend adding some medical management records.
- Try to get the medical emergency department fact sheet added to the front of the ATSDR medical management guidelines.
- Try to get the fact sheet templates posted on the Epi-X Forum or similar national forum.
- Information on fact sheets, particularly the medical fact sheet, should be traceable back to the literature.
- Make sure information posted is consistent with CDC physician alert system (or see if CDC can use the templates as part of that existing system).
- Suggest having an article about the workshop published in a peer review journal.
- See if CDC could create a government search engine of federal documents for chemicals similar to what was sponsored for pesticides (beyondpesticides.org).
- Pursue discussions with the American Association of Poison Control Centers (AAPCC) about poison centers becoming the formal communications link with incident command and the medical health response.

- Explore the idea of using the Public Health Department fact sheet as an informal inter-agency mechanism for tracking chemical technical information during an event.
- Have the ICTC monthly conference calls become more practice-oriented by doing some exercises using the actual templates, possibly even a national tabletop exercise on one of the monthly calls. Try to get a representative from DHS to participate in the conference calls.

Decisions/Next Steps

- Public Health Department fact sheet – Sandy McNeel will finish.
- Worker fact sheet and Public/Press fact sheet – Marilyn Scott will combine the two into one public/press fact sheet.
- Medical Emergency Department fact sheet – Sharon Lee will finish, incorporating Dr. Geller's specific instructions.
- Reference list (Information Source Matrix) needs to be completed. Erik Janus will do. Reference links need to be included in the fact sheets. Sharon Lee will do.
- Core competencies and benchmarks will be finished by committee.
- Article for peer review journal – Janice Lee will take the lead in drafting a journal article.

CDC Workshop
"Risk Communication Needs in a Chemical Event"

ATTACHMENT A - <u>AGENDA</u>

"Deliverables":
   1. *nationally agreed upon information templates that include content elements and consistent reference sources*
   2. *core competencies and benchmarks draft with workshop comments*
   3. *workplan for dividing up tasks to fill as yet unmet needs identified at workshop*

Day 1

8:00 – 8:30   Registration

8:30 – 9:00   Welcome and charge of workshop (Michael Donnelly, CDC-
                NCEH/ATSDR; Joseph Henderson, CDC-OTPER)

9:00 – 10:00   Crisis and risk communication and CDCynergy (Marsha Vanderford, CDC-
                OD); CDC/ASPH audience research (Neil Henderson,
                University of Oklahoma)

10:00 – 10:15   Break (beverages)

10:15 – 12:00   Panel discussion on "audience"-related core competencies. ["audience" refers to
                recipients of risk information other than occupational.]
                Panel participants:
                - Scott Damon – NCEH/ATSDR (panel moderator)
                - Ken August – NPHIC, CA DHS
                - Thom Berry – NPHIC, SC DHEC
                - Robert Geller – AAPCC
                - Neil Henderson – CDC, Univ. of OK
                - Claudine McCarthy – NACCHO
                - Sandy McNeel—CA DHS
                - Gary Noonan—NCEH/ATSDR
                - Glenn Todd – NCEH/ATSDR

12:00 – 1:15   Lunch (on your own)

1:15 – 2:45   Occupational health panel (includes first responders – professional and volunteer,
                first receivers, contractors, and occupational worksite exposures). Panel
                participants:
                - Chris Ottoson – OR OSHA (panel moderator)
                - Wendell Davis – IAFF
                - John Ferris – U.S. OSHA

- Chip Hughes – NIEHS
- Susan Kess – NCEH/ATSDR
- John Morawetz - ICWUC
- Rick Niemeier – NIOSH
- Wendell Davis – IAFF
- Rod Turpin – EPA

2:45 – 3:00   Break (beverages)

3:00 – 4:30   Breakout groups discuss one each, a-d below. [Template discussions: content/format, reliable reference sources, organizing to produce 'fast fact sheets', identifying unmet needs, etc.]

    a) Public fact sheet template; 'audience' core competencies/ benchmarks (Facilitators: Ken August and Thom Berry)

    b) Occupational health: first responders and non-first responders; occupational core competencies/benchmarks and templates (Facilitators: Rick Niemeier and Marilyn Scott)

    c) Medical provider fact sheet template; 'audience' core competencies/benchmarks (Facilitators: Rob Geller and Paula Burgess)

    d) Public health departments fact sheet template; include distribution mechanism, e.g., as an updatable electronic 'situation report' for health information; 'audience' core competencies / benchmarks (Facilitators: Erik Janus and Sandy McNeel)

4:30 – 5:00   Plenary reports from breakout groups by breakout facilitators (includes identifying unmet needs)

Day 2

8:00 – 8:45   Group discussion – ideas generated from Day 1 (Facilitator: Sharon Lee, CA DHS)

8:45-10:15   Panel discussion on inter-agency/agency core competencies. Panel topics: strategies for coordination/communication; organizing to produce/share information rapidly; sharing of resources; chemical/scenario risk prioritization; and law enforcement needs.
Panel participants:
- Paula Burgess – NCEH/ATSDR (panel moderator)
- Jim Augustine – Atlanta MMRS, Emory University
- Rob Blake – DeKalb County, GA Board of Health
- Ben Garrett – FBI
- John Gustafson – EPA, National Response Team
- Raymond Neutra – CA DHS
- Michelle Petrovich – U.S. DHS
- Harald Pietz – CDC-OTPER

- Eric Waage – 55th Civil Support Team, MN

10:15 – 10:30 Break (beverages)

10:30 – 12:00 Breakout groups on inter-agency/health agency core competencies: (Facilitators: Raymond Neutra, Sharon Lee, Ben Garrett, Sandy McNeel and Deb Grundmanis)

12:00 – 1:15 Lunch (on your own)

1:15 – 1:45 Plenary reports from breakout groups by breakout facilitators (includes identifying unmet needs)

1:45 – 3:00 Identifying unmet needs: summary panel discussion based on plenary reports from both days' breakout sessions (Mike Donnelly, NCEH/ATSDR)

3:00 – 3:30 Next steps; wrap-up of workshop (Sharon Lee, CA DHS)

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ATTACHMENT C

Background Document

According to the Monterey Institute's Weapons of Mass Destruction database on worldwide reported terrorist actions, readily available chemical agents have been the most common means of delivering terror. Of 246 incidents by criminals or terrorists, 67% involved chemical agents, 16% were biological agents and 7% were radiological (MI database, 1900-2003). They record 953 fatalities and 4,351 non-fatal injuries from chemical agent terrorism and only 8 fatalities and 1,059 injuries from biological agents. The most common delivery method involves consumer product tampering, water supply contamination or contamination of food or drink. These are problems that will fall squarely on the public health establishment. (Dr. Gary Ackerman, Monterey Institute of International Studies, July, 2003)

Chemical (and biotoxin) incidents, particularly those that leave a contaminating residue, tend to involve a wider range of governmental regulatory agencies at the local state and federal level than incidents involving a biological agent. This is because many agencies have regulatory authority for different media. A terrorist attack on a train with a tank full of pesticide, might involve, water, soil, wildlife, and air, each media having its own regulatory agencies at local, state and federal levels. The greater the number of responsible agencies, the greater the potential for conflicting risk communications.

Like biologic agents chemicals cause acute effects, but the public has learned to fear rare delayed effects such as cancer, birth defects and neurological disease. When residual contamination is involved, conflicting messages may lead to lingering anxiety and distrust.

Recent events have shown that terrorist events are most likely to affect the workplace. Although any worker can be impacted during a terrorist event, first responders, healthcare workers, and construction workers are most at risk of illness and injury during response and recovery efforts. Worker health and safety is a critical consideration during emergency response, but one that is often overlooked in the initial crisis and early recovery phases.

All these complexities imply the need for unique risk communication strategies in the pre-event, crisis and recovery phases of chemical and residual contamination terrorism.

State and federal health agencies recognize that the nation's preparedness and response activities have been focused almost entirely on biological terrorism in recent years. They also recognize that there is an immediate need to develop pre-event information and materials on a wide range of chemicals to ensure our responding agencies are well prepared.

Lack of chemical terrorism emergency response information available to state health departments in early 2002 led to the formation of a national network of local, state, and federal health agencies, the Interstate Chemical Terrorism Conference (ICTC). The purpose of the ICTC

is the timely sharing of knowledge, materials, and resources on chemical terrorism between states and agencies. ICTC is currently comprised of state and local health agency and response personnel representing 50 states, federal agencies, and other national health organizations.

Working with the ICTC, the Centers for Disease Control and Prevention (CDC) are supporting a workgroup effort to address the basic elements of risk communications needs in a chemical event. The primary goal of this workgroup is to develop templates for chemical fact sheets destined for first responders, medical providers, public health officials, impacted workers, and the general public and press, as well as a list of core competencies and benchmarks. These are intended to assist agencies in determining if they have a complete risk communications plan to prepare for, respond to, and recover from a chemical event. CDC and other agencies may also find these products useful for subsequent efforts to formulate a model risk communications plan. The CDC-sponsored workshop will be held in Atlanta, Georgia, February 3-4, 2004. Core competencies and benchmarks and fact sheet templates have been drafted for the communications plan in preparation for this workshop.

ATTACHMENT D

Model Core Competencies and Benchmark Activities

Preparatory Phase Communication Plan explaining what is communicated to whom and by what means:

Core Competency	Benchmark
1. For various modes of delivery, the agency will establish relationships with likely partners in the crisis and recovery phase. Agency partners will clarify their roles with regard to risk communication. Agency partners will work with each other and with relevant opinion leaders/gate keepers in the community.	1. Agencies will maintain partnerships with all relevant response agencies and individuals through electronic information sharing, conference calls, meetings and other "stakeholder" activities such as preparedness exercises. For each mode of delivery (explosion, environmental release, consumer product tampering, food tampering etc.), list the responsible local, state and federal agencies that would be involved as well as their 24/7 contact numbers.
2. Scientific staff of agencies will be able to disseminate information and prepare fact sheets on chemical agents according to an agreed upon template in a timely fashion.	2. A detailed team structure and procedure for quickly acquiring and disseminating technical information, and preparing fact sheets for different audiences according to agreed upon templates will be developed and rehearsed (See Attachments F-I). MOUs will be completed with regard to likely cooperating agencies (considering various modes of delivery).
3. Agencies will give priority to scenarios that also are subject to accidental disasters.	3. Consider and practice likely local accidental release scenarios.
4. Agency scientists will have established access to "surge capacity" assistance from others with regard to acquiring and summarizing information.	4. Have MOUs with adjacent states, other state, local and federal agencies, and academia and private sector entities for voluntary mutual aid and will have conducted tabletop drills.

5. Public information officers (PIOs) will have access to "surge capacity" assistance from other agency's PIOs with regard to their functions.	5. Have MOUs with other agencies for mutual aid and will have conducted and/or participated in table top drills.
6. Agency staff will be able to respond 24/7 to support the state's crisis response if necessary.	6. Have plans for, and rehearse, a "shift" system for working and a protocol for changing shifts.
7. Agencies will know how the public health function fits into the "Incident Command" system (ICS), what assets they have to contribute, and how to communicate within the chain of command.	7. Have an organization chart for the structure of the "public health functional group" and how its activities contribute to the "planning" function, "worker health and safety," and "public information" functions. Train and exercise staff in operating in ICS.
8. Agencies will know how to communicate with stakeholders, including community leaders, the news media, and the Health Alert Network (HAN), during the crisis and recovery phases.	8. Have a protocol in place involving other likely agencies to deal with conflict, and rehearse the protocol. This may involve community or labor/management advisory groups, special newsletters etc., as they relate to: (a) prolonged clean ups or (b) epidemiological studies.
9. Agency staff will cooperate with others to minimize the prevalence of anxiety and the incidence of exacerbation of existing mental health problems.	9. Agencies (e.g., public, mental health, education, industrial relations departments) as well as the Red Cross, and volunteer organizations (e.g. citizen core councils) will have a mutual rehearsed plan which includes the propagation of sound risk communication through preset opinion leaders such as the clergy, school officials, union leaders, ethnic leaders, employers, private sector leaders, mental health professionals, physicians, and service organizations.
10. With regard to the crisis and response phases, PIOs and scientific and community spokespersons will be familiar with risk communication concepts and techniques as they apply to oral, written and visual communication.	10. PIOs, scientists, elected officials and emergency managers will have completed didactic and experiential trainings.

11. Agencies will anticipate the need to monitor and respond to rumors.	11. Have and practice a staffing plan to monitor media reports of rumors and a protocol for responding to them.
12. PIOs, agency leadership and scientists will be able to convert technical fact sheets into press releases and radio spots in a timely fashion.	12. Have a protocol describing how the PIOs, department/agency leadership, and scientists summarize technical information and develop public guidance, to expedite review and approval.
13. Scientific staff will use agreed-upon reference materials for summarizing information.	13. Have access to the agreed upon reference materials (See Attachment J) and be able to describe their appropriate use. Update reference materials regularly.
14. Agencies will have immediate electronic and non-electronic access to risk communication facts for relevant audiences. Agencies will ensure that public communications will include appropriate Internet access to risk information.	14. Prepare secure Web-based fact sheets and streaming audio presentations that can be downloaded or faxed for chemicals / agents of concern. Internet access information to risk bulletins is readily available in all forms of media.
15. For each mode of delivery, the department/agency should know the relevant community opinion leaders/ gatekeepers on whom they can rely to help propagate risk communication.	15. For each mode of delivery, list the likely type of opinion leaders / gatekeepers on whom one can rely to help propagate risk communication, and how to contact them (e.g., management, union, school principals, community leaders, radio, TV and Internet providers of news).
16. The department/agency will communicate with non-English speakers in the community.	16. List the languages (including sign language) in use in the jurisdiction and the contact numbers for those able to translate verbal, written and visual messages into those languages. Establish "As-Needed" contracts with these resources.

17. Agencies will provide guidance on worker health and safety on an ongoing basis. First responders, first receivers, contractors, skilled support personnel and volunteers in work settings most likely to be directly or indirectly impacted are a priority for receiving guidance in a practice-based timely fashion. This approach anticipates that risk communication for workers assigned duties within controlled access hazard zones at a chemical event will not only need information about a chemical agent but other essential safety and health information to make informed decisions about their own safety and well-being.	17. A. Risk communication needs for all workers will be determined and are consistent with OSHA hazard assessment and worker training requirements. (See Attachment E - Occupational Health Risk Communication Issues.) B. Risk communication protocols and templates for emergency responders and medical management are used to transfer essential information to all workers in a timely fashion. C. Actively recruit/involve the regulatory agency responsible for occupational safety and health for your locale, as a technical assistance and resource asset for risk communication. D. Roles and responsibilities for worker health and safety within the incident command system are defined. E. MOUs are implemented to facilitate successful risk communication across all aspects of a chemical event (pre-event, crisis, and post-event). F. Standard operating procedures will be developed with personnel trained to address worker health concerns.

18. Agencies responsible for worker health and safety will target early assistance to organizations most likely to be affected by chemical terrorism or chemical disasters.	18. A. Organizations and sites identified as potential vulnerable worksites, such as airports, subway systems, major tourist attractions, chemical manufacturing and transportation firms, hospitals, etc., have established risk communication plans in conjunction with emergency response plans. B. Responsible agencies will have MOUs with organizations (labor and management) about risk communication in the crisis and recovery phases. C. Hospitals need to communicate and coordinate with state, regional, local emergency management planners regarding their role in the ICS in a chemical event (e.g., involvement in exercises/drills), hospital preparedness (e.g., mass decontamination, 'first responder' role for those presenting directly to hospitals independent of the scene), hospital worker safety and health protection (e.g., PPE, respiratory protection).

Crisis Phase

Core Competency	Benchmark
19. Agencies will be able to convey accurate and clear information to communities in a practice-based, timely fashion.	19. In actual events, an assessment shows that risk communication is/has been accurate, timely and understandable.

20. Agencies will be able to provide occupational health guidance to first responders, first receivers, contractors and volunteers in a practice-based timely fashion.	20. Agencies will have an MOU on who is responsible for disseminating and maintaining key occupational health information, (e.g., chemical fact sheets, personal protective equipment, decontamination, etc.), that this information is readily available (command centers, work sites, on the Web, and for e-mailing and faxing when needed). Hospitals and emergency management planners should communicate and coordinate essential information to facilitate risk communication and risk management needs.

Recovery Phase (Particularly in situations in which there is residual contamination)

Core Competency	Benchmark
21. Agencies involved with prolonged clean up or follow up epidemiological studies will communicate in a timely, intelligible, practice-based, and accurate way.	21. A survey or other methods for contacting stakeholders (including vulnerable subgroups) suggests that the developed protocol is being followed and that stakeholders are satisfied.
22. Agencies will be able to provide practice-based guidance on worker health and safety on an ongoing basis.	22. First responders, volunteers, contractors, and other workers involved in the recovery phase will be shown to have avoided unnecessary risk.

Note: "Agency" refers to any agency or department with a responsibility for risk communication in a chemical terrorism event.

ATTACHMENT E

Occupational Health Risk Communication and Risk Management Issues for Responders

This document is an adjunct to Core Competencies 17, 18 and 20, with the accompanying benchmarks.

The purpose of this document is to create an understanding that responders must deal with a wide variety of health and safety issues that non-responders do not otherwise face. For crisis and recovery operations, responders will deal with rapidly changing conditions, many of which are hazardous to their own well-being. This document focuses on the risk communication needs for the health and safety of responders working within/under the Incident Command System: (i) the informational needs for target audience(s); (ii) the organization and presentation of information; (iii) the role of occupational safety and health professionals in making these determinations; (iv) the topics to be covered and their scope; and (v) other issues. Risk managers will be able to communicate essential information so all responders may complete their assigned responsibilities without detrimental outcomes to their own safety and well-being.

1. **Define the worker populations and their health and safety information needs for pre-event, crisis, and recovery phases of a chemical event:**

    Incident Commanders: single, joint or unified command structures
    First responders: fire, police, EMS (private contract services also)
    Skilled support personnel: environmental cleanup, heavy equipment operators, contractors
    Specialists: public health, occupational safety and health
    First receivers: EMS transport, hospitals (emergency room, healthcare workers, housekeeping, etc.)

    Note: Responder health and safety needs to be coordinated among these incident activities: (i) hazard identification and correction; (ii) guidance for the development, implementation and monitoring of personal protective equipment (PPE) selection, use and decontamination; (iii) distribution of PPE; (iv) implementation of a respirator fit-test program; (v) exposure sampling and analysis; (vi) site health and safety risk assessment; (vii) exposure and safety data sharing; (viii) site safety and health plan; (ix) coordinating 24/7 responder safety and health monitoring; and (x) ongoing evaluation to keep the site safety and health plan current.

2. **Provide a uniform framework for delivery of essential health and safety information to worker populations.**

Applicability of the OSHA Hazardous Waste Operations and Emergency Response Rules (1910.120) in defining risk communication needs
Emergency response plan requirements (1910.120(q)(2)) or equivalent:
Pre-emergency planning and coordination with outside parties
Personnel roles, line of authority, training, and communication
Emergency recognition and prevention
Safe distances and places of refuge
Site security and control
Evacuation routes and procedures
Decontamination
Emergency medical treatment and first aid
Emergency alerting and response procedures
Critique of response and follow-up
PPE and emergency equipment

3. The role of OSHA in providing guidance on worker health and safety.

The health and safety of workers has been a longstanding duty for federal OSHA. In addressing the safety and health needs for responders, OSHA operates within the National Response Plan through the National Incident Management System (NIMS), either in support of the safety officer function to provide assistance or through the planning section as a technical specialist. The primary purpose is to coordinate safety and health information and resource needs. For a more complete description of OSHA's role, refer to the Worker Safety and Health Support Annex to the National Response Plan.

4. Developing appropriate risk communication information for worker health and safety.
Hazard assessment:
Hazard communication (chemical)
PPE
Respiratory protection
Medical surveillance
Confined spaces
Safety monitoring: site-specific hazards
Having Emergency Rooms provide feedback to ICS on injuries/illnesses associated with event, to ensure the proper protection of responders.
"Hazard Communication" – all hazards (essential information)
Exposure potential
Self-protection: selling the need for voluntary compliance
Limiting contamination
Decontamination
Managing the Message
Simplicity
Expectations
Listening to issues/concerns
Follow-up

5. Other Issues
- Labor/Management teams as part of the planning effort.
- Messages may need to be tailored to the incident site (e.g., access to control sites/staging areas, access to PPE, ability for workers to provide information on what they have seen).
- Specialists: developing a means to involve private sector EHS professionals as part of emergency plans (e.g. registries).
- "Surge capacity" for skilled trade workers trained for chemical (terrorism-related) events.
- Access to essential information and data development through the ICS process.
- Monitoring data is an essential tool for developing decision matrices that ultimately tie to risk communication in the crisis phase of an event, plus recovery phase.
- Data interpretations for risk communication, risk assessment, exposure outcomes, etc.

CDC Workshop
"Risk Communication Needs in a Chemical Event"

ATTACHMENT F

PUBLIC/PRESS FACT SHEET TEMPLATE

AGENCY NAME_____ DATE_____

CHEMICAL_____

Short summary of chemical release information:
Here's what we know:
   Date, time, location of release
   Name(s) of chemical(s) and materials released
   ChemFinder: http://chemfinder.cambridgesoft.com/
   MSDS locater: www.ilpi.com/msds/index.html
   What is known about cause of release (e.g. intentional act, spill, collision, etc.)
   Initial impact (area affected; who, what are affected)
   Containment steps taken and next steps
   Steps taken to prevent public exposure (evacuation distances, isolation, clean-up/disposal), incident command status
Here's what we're doing to find out what we don't know:

Immediate actions public is to take:
Identify who needs to take action by proximal distance to event site
Identify if site is at secondary risk via a contaminated individual
Evacuation or shelter-in-place instructions
Decontamination of people, pets, livestock, homes (if shelter-in-place)
Location of medical aid, emergency decontamination stations, emergency shelters
Safety of drinking water supply (public water systems, private wells affected?)
Safety of food supply (home food gardens, orchards, stream fish)

What is Chemical X?
Common name, form (liquid/gas/powder), appearance (color range, oily, etc.), odor, flammability, vapor (moves low or high to ground in warm or cold weather), visible changes in exposed environment or animals, persistence in environment. Other names.
CDC Chemical Fact Sheets: http://www.bt.cdc.gov/Agent/agentlistchem.asp
ChemFinder: http://chemfinder.cambridgesoft.com/
TOXNET: http://toxnet.nlm.nih.gov/

How can I be exposed to X?
Inhalation
Skin Contact
Eye Contact
Ingestion (eating, drinking, smoking)
CDC Chemical Fact Sheets: http://www.bt.cdc.gov/Agent/agentlistchem.asp
CDC/ATSDR Tox Profiles: www.atsdr.cdc.gov/toxpro2.html
TOXNET: http://toxnet.nlm.nih.gov/

What should I do if exposed to X?
Decontamination is possible. List immediate actions to take for oral, skin, eye, clothing
decontamination.
CDC Chemical Fact Sheets: http://www.bt.cdc.gov/Agent/agentlistchem.asp
Chemical Agents: Facts about Personal Cleaning and Disposal of Contaminated Clothing. CDC
http://www.bt.cdc.gov/planning/personalcleaningfacts.asp

How can I prevent exposure to X (myself and my family)?
Do not enter or reenter the contamination scene. Shelter in place and listen to Public
Broadcasting or other local radio stations or local TV stations for emergency information on
evacuation, shelter in place, and decontamination.

Refer to the Centers for Disease and Control's (CDC) Emergency Preparedness Web site and
chemical fact sheets at http://www.bt.cdc.gov/ and go to Chemical Agent for the specific
chemical(s).
Additional references:
Department of Homeland Security Ready.Gov Web site: http://www.ready.gov/
Disabilities, "Disaster Preparedness for People with Disabilities", Web resources:
> http://www.jik.com/disaster.html
> http://www.disabilityresources.org/DISASTER.html
OVC Handbook for Coping after Terrorism: A Guide to Healing and Recovery.
Office for Victims of Crime, Department of Justice:
http://www.ojp.usdoj.gov/ovc/publications/infores/cat_hndbk/welcome.html

For occupational settings refer to:
CDC/s NIOSH Emergency Responses Chemical Agents,
http://www.cdc.gov/niosh/homepage.html
Chemical Agent information, http://www.cdc.gov/niosh/topics/emres/chemagent.html

What should I do to protect my pets and livestock?
Listen to Public Broadcasting or other local radio or TV stations for emergency information on
protecting your pets and livestock.
Coordinate messages about animal care with the local or state agricultural department, and if
appropriate, the state veterinarian.

American Red Cross Disaster Preparedness Info for Pet owners:
http://www.redcross.org/disaster/safety/animal.html
American Academy on Veterinary Disaster Medicine:
http://www.cvmbs.colostate.edu/clinsci/wing/aavdm/aavdm.htm
American Veterinary Medical Association, Disasters: www.avma.org/disaster

How can X be released into the environment?
Where is X found, common uses, historical uses. How it can be released into the environment.
What happens when it is released into the environment. (specify to particular work settings)?
What factors limit exposure (e.g. inherent limitations in use as a weapon, insoluble in water,
breaks down rapidly in environment)?
CDC Chemical Fact Sheets: http://www.bt.cdc.gov/Agent/agentlistchem.asp
TOXNET: http://toxnet.nlm.nih.gov/

How can X affect my health?
Short term effects: early acute signs and symptoms; how soon will symptoms appear
Long term effects: chronic disease, neurological, reproductive effects, and cancer
Target organs:
Pregnancy issues:
Immune disorder issues:
Elderly issues:
CDC Chemical Fact Sheets: http://www.bt.cdc.gov/Agent/agentlistchem.asp
CDC/ATSDR Tox Profiles: www.atsdr.cdc.gov/toxpro2.html
TOXNET: http://toxnet.nlm.nih.gov/

How can X affect my children?
CDC/ATSDR Tox Profiles: www.atsdr.cdc.gov/toxpro2.html
TOXNET: http://toxnet.nlm.nih.gov/

If I experience adverse health effects, what should I do?
Actions to take: Immediate First Aid, self-treatment procedures
In the event of a large-scale chemical release, contact the doctor's office or medical care facility
for any special instructions before you go.
When is it necessary to seek medical attention?
If at work, inform employer, go to doctor or nearest medical care facility.

Is there a medical test to show whether I have been exposed to X?
There are few medical tests for chemical exposures. Tests may be highly specialized, may not be
useful, and may take many days to get results. Medical treatment for a chemical exposure is
based on a person's signs and symptoms of injury or illness. Treatment for acute chemical
injuries cannot be delayed while waiting for medical test results.

NIOSH medical tests for OSHA substances: http://www.cdc.gov/niosh/nmed/medstart.html
TOXNET: http://toxnet.nlm.nih.gov/

Is there an antidote readily available?
Contact Regional Poison Center at 1-800-222-1212

Is there a test to show whether X is in the environment?
TOXNET: http://toxnet.nlm.nih.gov/

Where can I get more information?
- Designated phone system number:
- Regional Poison Control Center 1-800-222-1212
- Centers for Disease Control and Prevention
  Public Response Hotline (CDC)
  English 1-888- 246-2675
  Español 1-888-246-2857
  TTY 1-866-874-2646
  Emergency Preparedness and Response Web Site:
    http://www.bt.cdc.gov/agent/agentlistchem.asp.
    E-mail inquiries: cdcresponse@ashastd.org..
    Mail inquiries: Public Inquiry c/o BPRP
      Bioterrorism Preparedness and Response Planning
      Centers for Disease Control and Prevention
      1600 Clifton Road, Mailstop C-18
      Atlanta, GA 30333
- Agency for Toxic Substances and Disease Registry (ATSDR) (1-800-422-8737)
  E-mail inquiries: atsdric@cdc.gov
  Mail inquiries:
  Agency for Toxic Substances and Disease Registry
  Division of Toxicology
  1600 Clifton Road, Mailstop E-29
  Atlanta, GA 30333

Web Resources:
CDC terrorism Web site: http://www.bt.cdc.gov/
ATSDR "ToxFAQs" www.atsdr.cdc.gov/toxfaq.html

GUIDELINES FOR USE OF PUBLIC/PRESS FACT SHEET TEMPLATE

1. Content should be consistent with that of other government agencies, the Incident Command (ICS), and the Poison Center.

2. It is important to provide information that (1) protection is possible, (2) survivability is possible, (3) decontamination is possible, and (4) antidotes are/are not available.

3. Cover only immediate decontamination basics, such as: immediately remove contaminated clothing, shower or wash skin and hair with soap and water.

4. Provide information about the use of the chemical to help the public be aware that they may be more prepared than they think they are. Note similarities between some preparations for a chemical event and for a natural disaster.

5. Describe the routes of entry into the body (inhalation/skin/eye/ingestion) in terms of proximal and distal to the chemical release site. Stress that protection is possible for each of these routes, and what protection to use.

6. Medical tests for most chemicals are not widely available to the public. Some tests may not be good determinants of intoxication in low-dose situations or where there are time delays in obtaining the specimen. If a test can determine a chemical intoxication and is available, address how the extent of exposure is determined and quantified. State if a test is not available.

7. If an antidote is not widely available, address the issue and provide information on what is known. Do not omit this section in the public document.

ATTACHMENT G

EMERGENCY DEPARTMENT MEDICAL PROVIDER FACT SHEET TEMPLATE

FACT SHEET SUBJECT _____
PREPARED BY_____ (AGENCY)
DATE_____

RECOGNITION and TRIAGE:

PERSONAL PROTECTIVE EQUIPMENT (AT THE HEALTH CARE SITE):

DECONTAMINATION (AT THE HEALTH CARE SITE):

KEY MEDICAL MANAGEMENT (DIAGNOSIS, TREATMENT):

PATIENT MONITORING:

DISPOSITION CRITERIA (WHEN TO SEND PATIENT HOME):

REPORTING/COORDINATION LINK:

GUIDELINES FOR EMERGENCY DEPARTMENT FACT SHEET DEVELOPMENT:

1. Use bullet format.
2. Document reference sources.
3. The fact sheet is an initial 1-2 page section devoted to immediate care.
4. Comprehensive care information can be attached to the ED fact sheet for care beyond the emergency department.

EXAMPLE REFERENCE RESOURCES:

1. National Poison Control Center hotline: 1-800-222-1222
2. CDC/ATSDR: Medical Management Guidelines http://www.atsdr.cdc.gov/mmg.html
3. CDC: Chemical Fact Sheets http://www.bt.cdc.gov/agent/agentlistchem.asp
4. CDC: Chemical Hazard Emergency Room Procedures http://www.cdc.gov/nceh/demil/articles/initialtreat.htm
5. IPCS INTOX http://www.intox.org/databank/index.htm
6. eMedicine: http://www.emedicine.com/
7. PUBMED http://www.ncbi.nlm.nih.gov/entrez/query.fcgi
8. Virtual Naval Hospital http://www.vnh.org/

ATTACHMENT H

**Template for Chemical Emergency Response Fact Sheet
Produced for Local Public Health Agencies by their State Health Department**

Chemical X or Incident Name

Prepared _____ (mm/dd/yy) ____:____ (time)

Approved by: _____ Position: _____ Date: _____ Time: _____

TOPICS	RATIONALE AND DATA SOURCES
Short Summary of Incident: □ Date, time, location, description of incident □ Name of chemical(s) involved □ Number of persons injured/killed □ Containment status □ Actions taken to prevent public exposure (evacuation distance, isolation, etc.) □ Incident Command System / National Incident Management System deployment status	What is known and unknown about the event at the time the fact sheet was developed, especially in multi-jurisdictional events Contact local, regional or state emergency operations centers
Immediate Protective Actions: □ First Aid and Emergency Treatment: □ Do not enter/reenter contaminated scene □ Identify radio/TV stations for emergency broadcast messages □ Shelter-in-place? Evacuate? (humans? animals - pets/livestock?) □ Can the public self-treat? □ Is an antidote available? □ Medical treatment guidelines for health professionals	Provide advice on early, non-instrument dependent safety issues [Link to First aid/Emergency Treatment in Information Source Matrix] CDC chemical fact sheets: http://www.bt.cdc.gov/agent/agentlistchem.asp NIOSH Int'l chem safety cards: http://www.cdc.gov/niosh/ipcs/nicstart.html [Link to Medical Treatment Guidelines for Health Pros in Information Source Matrix] ATSDR MMGs: http://www.atsdr.cdc.gov/mmg.html IPCS INTOX: http://www.intox.org/databank/index.htm VA Clinical Guides, "Biological, Chemical and Radiation Induced Illnesses": http://www.oqp.med.va.gov/cpg/BCR/BCR_Base.htm#

TOPICS	RATIONALE AND DATA SOURCES
Actions to prevent exposure: Public – actions – ▫ Protect breathing/airways (masks? respirators?) ▫ Shelter-in-place? (how to effectively shelter while traveling or inside a building that is not an official emergency shelter) ▫ Avoid travel to certain locations? ▫ Cover outdoor water or food resources for pets/livestock/other animals? ▫ Is a vaccine available? ▫ Is there risk of secondary exposure from a contaminated person or object? ▫ Is the drinking water supply safe? ▫ Is the local food supply safe (home garden produce, orchards, stream fish)? ▫ Health care workers – PPE for secondary exposure ▫ Environmental workers (first responders, investigators, remediators) – PPE for primary exposure	▫ Refer to local emergency managers and evacuation plans ▫ Coordinate messages with EMSA staff ▫ Coordinate messages with first responder and occupational health agencies [Link to Planning/Preparedness in Information Source Matrix] ▫ Contact county agricultural commissioner ▫ If vaccine is available, who should receive it? Where? When? Where are vaccine supplies located? Who will administer? [Links to Strategic National Stockpile and local stores] [Link to PPE in Information Source Matrix NIOSH emergency response resources: http://www.cdc.gov/niosh/topics/emres/ OSHA PPE: http://www.ccohs.ca/oshanswers/prevention/ppe/ HazMat Laptop: http://www.duke.edu/~pirre001/hazmatlaptop.html American Academy of Veterinary Disaster Medicine: www.cvmbs.colostate.edu/clinsci/wing/aavdm.htm American Veterinary Medical Association, Disaster Preparedness: http://www.avma.org/disaster

TOPICS	RATIONALE AND DATA SOURCES
Background Information on Chemical X: ▫ Common name ▫ History ▫ Uses ▫ Locations where used	Provide context for describing this chemical to the public [Link to Public FAQs in Information Source Matrix] CDC chemical fact sheets: http://www.bt.cdc.gov/agent/agentlistchem.asp TOXNET: http://toxnet.nlm.nih.gov/
Physical and Chemical Characteristics of Chemical X: ▫ Form(s) – liquid, gas, vapor? ▫ Color ▫ Odor, odor threshold ▫ Vapor density (relative to air) or liquid density ▫ Flammability/Explosion potential ▫ Solubility in water ▫ Any visible changes expected in exposed vegetation or animals?	Provide information on early, non-instrument dependent detection and safety issues [Link to Physical Properties in Information Source Matrix] Chemfinder: http://chemfinder.cambridgesoft.com/ NIOSH Int'l chem safety cards: http://www.cdc.gov/niosh/ipcs/nicstart.html WMD: Army chem agent facts: http://chppm-www.apgea.army.mil/hrarcp/CAW/
Environmental Fate of Chemical X: ▫ Degraded by sunlight, water, air, contact with soil? ▫ Persistence in environment (physical half-life in soil, air, water, sediment; biological half-life in fish, game, food crops) ▫ Interactions with other materials released during incident? ▫ Interactions that could be used to decontaminate people or remediate environment?	To inform decisions about avoidance, assessment and remediation [Link to Physical Properties in Information Source Matrix] TOXNET: http://toxnet.nlm.nih.gov/ Environmental fate databases: http://www.syrres.com/esc/efdb.htm

TOPICS	RATIONALE AND DATA SOURCES
Environmental Sampling: ▫ Feasible? (If so, is a rapid test available?) ▫ Is quantitative analytic method available? ▫ Air, soil, water (tap, surface, ground), vegetation? ▫ Collection methods/devices ▫ Labeling/packaging instructions ▫ Laboratories for submission (including submission forms, chain of custody documents, delivery protocols) ▫ Contact info for environmental sampling inquiries	Determine feasibility of environmental sampling, appropriate media, and, if feasible, provide info to inform discussion of need for sampling, goals of a sampling plan and how to get samples analyzed EPA environmental test methods/guidelines: http://www.epa.gov/Standards.html NIOSH manual analytic methods: http://www.cdc.gov/niosh/nmam/ OSHA chemical sampling info: http://www.osha-slc.gov/dts/chemicalsampling/toc/toc_chemsamp.html TOXNET: http://toxnet.nlm.nih.gov/ Contact information for state or local Laboratory Response Network laboratorian
Regulatory Values: ▫ Are TLVs, PELs, AEGLs etc. available? ▫ Why these measures are appropriate or inappropriate for general population	Provide context for health recommendations if air monitoring data is available [Link to Exposure Guidelines in Information Source Matrix] AEGLs: http://www.epa.gov/oppt/aegl/ ERGs/TEELs: http://tis-hq.eh.doe.gov/web/chem_safety/teel.html NIOSH databases: www.cdc.gov/niosh/database.html

TOPICS	RATIONALE AND DATA SOURCES
Controlling Exposure to Chem X: Decontamination/Clean-up: ▫ Human: recommended methods for those exposed on scene, at hospitals, individuals at home or workplaces ▫ Clothing: recommended methods for cleaning or disposing of contaminated clothing ▫ Property: (vehicles, outdoor play equipment, HVAC, etc.) - recommended methods ▫ Animals: Pets/Livestock - recommended methods (washing, clipping/shaving hair) ▫ Environment: soil, water (use of booms, dikes, etc.) Safety tips: ▫ Safe use of cleaning chemicals (e.g., do not combine bleach and ammonia) ▫ Beware of extreme weather conditions (appropriate temperature and pressure of water used in decontamination) Evidence preservation: ▫ Advice for handling materials that may be used in a future investigation	To enhance locally available information regarding decontamination procedures for event-specific exposure of individuals, sites and materials [Coordinate with EMSA, police/fire for first responders and pre-hospital staff] [Link to Exposure Guidelines, Decon, and Med treatment in Information Source Matrix; Link to Public FAQs template] CDC Facts About Personal Cleaning and Disposal of Chemically-Contaminated Clothing http://www.bt.cdc.gov/planning/personalcleaningfacts.asp "HAZMAT for Healthcare": http://www.hazmatforhealthcare.org SBCCOM "Guidelines for Mass Casualty Decontamination - Terrorist Chemical Incident" http://hld.sbccom.army.mil/cwirp/cwirp_guidelines_mass_casualty_decon_download.htm Virtual Naval Hosp. Decon fact sheets, http://www.vnh.org/CHEMCASU/08Decontamination.html#Chemical [Evidence preservation: Contact law enforcement (FBI) representative at Incident Command]
Routes of Exposure: ▫ Inhalation ▫ Ingestion ▫ Mucus membrane contact ▫ Dermal contact ▫ Entry through wounds ▫ Secondary exposure possible?	Provide information about how people can be exposed to Chem X [Link to Public FAQs in Info Resource Matrix] CDC Chemical Fact Sheets: www.bt.cdc.gov/Agent/agentlistchem.asp ATSDR Tox Profiles: www.atsdr.cdc.gov/toxpro2.html TOXNET: http://toxnet.nlm.nih.gov/

TOPICS	RATIONALE AND DATA SOURCES
Human Intake and Storage: ▫ Succinct Absorption (Is Chem X bioavailable through ingestion?) ▫ Brief Metabolism (are metabolites more or less toxic?) ▫ Excretion (urine? feces? sweat? breath?) ▫ Biological half-life ▫ Stored in fat or breast milk?	Provide information on how Chem X is absorbed into the body, whether metabolism increases or decreases its toxicity, and how rapidly it is removed from body. [Link to Toxicological in Information Source Matrix] ATSDR Tox Profiles: www.atsdr.cdc.gov/toxpro2.html CDC chemical fact sheets: http://www.bt.cdc.gov/agent/agentlistchem.asp TOXNET: http://toxnet.nlm.nih.gov/

Health Effects:
 	
Acute (Short-term) exposures:
Vulnerable subpopulations with increased risk of uptake or unusual metabolism or excretion?
 	
Early effects on specific organs depending on chemical(s) and route of exposure:
   ▫ Respiratory tract
   ▫ Skin
   ▫ Eyes
   ▫ Others as needed
 	
Latent (hidden) effects: risk of cancer, reproductive, respiratory, circulatory, gastro-intestinal, skeletal, or other systemic effects, especially for children, pregnant women, or elderly
	Provide signs, symptoms, and pathophysiological effects expected with short duration exposure. If exposure is longer-term, any additional health effects will be addressed in another fact sheet.
	
	[Link to Acute Hazards, Signs and Symptoms and Toxicology in Information Source Matrix]
	
	(See first responder references above)
	
	ATSDR Tox Profiles:
	www.atsdr.cdc.gov/toxpro2.html
	CDC chemical fact sheets:
	http://www.bt.cdc.gov/agent/agentlistchem.asp
	TOXNET: http://toxnet.nlm.nih.gov/

TOPICS	RATIONALE AND DATA SOURCES
Biological Monitoring: ▫ Can saliva, urine, blood, hair, breath or breast milk be tested to determine if individual has been exposed? ▫ Is biological sample collection feasible? ▫ If Yes, can collection be done at a non-medical facility (home? workplace?) ▫ If Yes, collection methods and supporting information, specimen handling instructions, laboratory submission information, data privacy assurances, length of time before results are delivered to the patient	Consider feasibility of monitoring biological samples for Chem X or its metabolites as indicators of individual exposure. If feasible provide practical information for sample collection and submission for analysis. [Link to Toxicological in Information Source Matrix] ATSDR Tox Profiles: www.atsdr.cdc.gov/toxpro2.html CDC chemical fact sheets: http://www.bt.cdc.gov/agent/agentlistchem.asp Medical tests for OSHA substances: http://www.cdc.gov/niosh/nmed/medstart.html Virtual Naval Hospital: http://www.vnh.org/
Public Health Messages: ▫ Emphasize 3 – 4 critical points ▫ Expression of empathy ▫ What has to be done ▫ What will be done ▫ How public can help others ▫ (e.g., coordination of blood donation, transportation, volunteers, money, supplies, registry participation) ▫ Translations into other languages for specific local communities?	Recommendations for the most important public messages. [See CDCynergy Emergency Risk Communication (www.orau.gov/cdcynergy/erc/)] [Link to Public FAQs in Information Source Matrix] Prepared fact sheet sources: ATSDR ToxFAQs: http://www.atsdr.cdc.gov/toxfaq.html CDC chemical fact sheets: http://www.bt.cdc.gov/agent/agentlistchem.asp New Jersey RTK fact sheets: http://www.state.nj.us/health/eoh/rtkweb/rtkhsfs.htm
Additional Information: For additional technical information, please contact (include separate public, media and medical professional hotline numbers): ▫ Specific individual ▫ Specific State Health Department o address o phone o fax o e-mail and/or Web site	(This section should be customized to identify appropriate state agency personnel for additional technical assistance.)

CDC Workshop
"Risk Communication Needs in a Chemical Event"

ATTACHMENT I

First Responder Fact Sheet Template
(NIOSH Emergency Response Card)

Emergency Response Card Template
Prepared by _____ (Agency)   Date_____

AGENT : Health Effect Category

CAS #:
RTECS #:
Common Names:

Agent Characteristics

- **APPEARANCE**:
- **DESCRIPTION**: (overview)
- **METHODS OF DISSEMINATION**:
  - Indoor Air:
  - Water:
  - Food:
  - Outdoor Air:
  - Agricultural:
- **ROUTES OF EXPOSURE**:

Personal Protective Equipment

- **CLOTHING**:
- **EYE PROTECTION**:
- **GLOVES**:
- **RESPIRATOR**:

Emergency Response

- **CHEMICAL DANGERS**:
- **EXPLOSION HAZARDS**:
- **FIRE FIGHTING INFORMATION**:
- **INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**:
  - Small spills, when used as a weapon:
  - Large spills, when used as a weapon:
  - Small spills: (initial and day vs. night distances)
  - Large spills: (initial and day vs. night distances)
- **PHYSICAL DANGERS**:
- **NFPA 704 Signal**:
- **SAMPLING AND ANALYSIS**:

Signs/Symptoms

- **TIME COURSE**:
- **EFFECTS OF SHORT-TERM EXPOSURE**:
- **EYE EXPOSURE**:
- **INGESTION EXPOSURE**:

- **INHALATION EXPOSURE**:
- **SKIN EXPOSURE**:

Decontamination (Human)

- **FIRST RESPONDER**:
- **PATIENT**:
  - Guidance for First Responders:
  - Procedures for patient decontamination:

First Aid

- **GENERAL INFORMATION**:
- **ANTIDOTE**:
- **EYE**:
- **INGESTION**:
- **INHALATION**:
- **SKIN**:

Long-Term Implications

- **MEDICAL TREATMENT**:
- **EFFECTS OF LONG TERM OR REPEATED EXPOSURE**:

On-Site Fatalities

- **INCIDENT SITE**:
- **RECOVERY AND ON-SITE MORGUE**:

Occupational Exposure Limits

- **NIOSH REL**:
- **OSHA PEL**:
- **ACGIH TLV**:
- **NIOSH IDLH**:
- **DOE TEEL**:
- **AIHA ERPG**:

NAS Acute Exposure Guidelines (AEGLs)

Decontamination (Environment and Equipment)

- **ENVIRONMENT/SPILLAGE DISPOSAL**:
- **EQUIPMENT**:

Agent Properties

Chemical Formula

Aqueous solubility

Boiling Point

Density

Flammability

Flashpoint

Ionization potential

Log K$_{benzene-water}$

Log K$_{ow}$ (estimated)

Melting Point

Molecular Mass

Soluble In

Specific Gravity

Vapor Pressure	
Volatility	

Packaging and Labeling
UN #
Proper Shipping Name
DOT Hazard Class
DOT Label
DOT Marking
DOT Placard

Trade Names and Other Synonyms

Who to Contact in an Emergency
For information on who to contact in an emergency, see the CDC Web site at http://www.bt.cdc.gov/emcontact/index.asp or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY).

Important Notice
The user should verify compliance of the cards with the relevant STATE or TERRITORY legislation before use. NIOSH, CDC 2003.

Example References Sources (Cite references actually used):

1. 2000 Emergency Response Guidebook http://hazmat.dot.gov/gydebook.htm
2. Agency for Toxic Substances and Disease Registry: Medical Management Guidelines www.atsdr.cdc.gov/mmg.html
3. Agency for Toxic Substances and Disease Registry: ToxFaqs www.atsdr.cdc.gov/toxfaq.html
4. Agency for Toxic Substances and Disease Registry: Toxicological Profile Information Sheet www.atsdr.cdc.gov/toxpro2.html
5. Centers for Disease Control and Prevention: Chemical Agents http://www.bt.cdc.gov/agent/
6. Chemical Hazards Response Information System http://www.chrismanual.com/
7. ChemIDplus, National Library of Medicine http://chem.sis.nlm.nih.gov/chemidplus
8. Computer-Aided Management of Emergency Operations (CAMEO): http://www.epa.gov/ceppo/cameo/
9. EMedicine.com http://www.emedicine.com/
10. International Occupational Safety and Health Information Centre (CIS): International Chemical Safety Cards (ICSCs) http://www.ilo.org/public/english/protection/safework/cis/products/icsc/
11. IPCS INCHEM http://www.inchem.org/
12. National Institute for Occupational Safety and Health: Emergency Response Cards http://www.bt.cdc.gov/agent/index.asp
13. National Institute for Occupational Safety and Health: Pocket Guide http://www.cdc.gov/niosh/npg/npg.html
14. National Institute for Occupational Safety and Health: Chemical Safety http://www.cdc.gov/niosh/topics/chemical-safety/default.html
15. National Library of Medicine: HSDB/TOXNET http://toxnet.nlm.nih.gov

16. The Merck Index, 13th Edition
    http://products.camsoft.com/themerckindex.cfm
17. US Department of Energy: Emergency Response Planning Guidelines (ERPGs) and Temporary Emergency Exposure Limits (TEELs)
    http://www.eh.doe.gov/chem_safety//teel.html
18. US EPA Acute Exposure Guideline Levels
    http://www.epa.gov/oppt/aegl/chemlist.htm
19. US Army Center for Health Promotion and Prevention Medicine: Chemical Warfare Agents http://chppm-www.apgea.army.mil/hrarcp/CAW/
20. United States Fire Administration: Hazardous Materials Guide
    http://www.usfa.fema.gov/fire-service/hazmat/hazmatguide/hmgfr3.shtm

CDC Workshop
"Risk Communication Needs in a Chemical Event"

ATTACHMENT J

<u>**Information Source Matrix**</u>

(See following pages J-1 through J-9.)

INFORMATION SOURCE MATRIX --- Listing of useful online information sources on chemicals, along with the type of information offered.

This directory is intended to provide users with a ready-to-go list of information sources offering chemical-specific data that could be needed in an emergency. It is not intended to be an exhaustive list of Internet sites containing information specific to chemicals. It is divided into two general sections, A and B, below:

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
SECTION A: Chemical-specific sites, including both toxic industrial chemicals (TICs) and weapons of mass destruction (WMD) chemicals														
A. 1 Information for the generalist														
American Association of Poison Control Centers	http://www.aapcc.org	**1-800-222-1222 phone number connects anyone in the US to their local poison center**								X	X			
CDC Bioterrorism Site	http://www.bt.cdc.gov/agent/agentlistchem.asp	CDC's list of 55 chemical WMDs - only 20 are linked to information; for some chemicals, the link is to CDC-developed materials; for others the link includes, or is limited, to ATSDR materials. Probably the single-most useful resource in terms of links to all needed information sources.	X	X	X	X	X	X	X	X	X	X	X	X
CDC / ATSDR "Public Health Statements"	http://www.atsdr.cdc.gov/toxprofiles	Summary of ATSDR Toxicological Profiles (see Section A.2)	X	X				X				X		
CDC / ATSDR "ToxFAQs"	http://www.atsdr.cdc.gov/toxfaq.html	Approximately 250 chemicals, excerpted from the ATSDR Tox Profiles, as FAQs (see Section A.2). There are several chemicals that are not on tox profiles list, including several chemical warfare agents.	X (abbreviated)	X								X	X	
CDC / ATSDR "Medical Management Guidelines"	http://www.atsdr.cdc.gov/mhmi.html	Medical management guidelines for over 50 chemicals, including many CWAs.	X (abbreviated)	X	X	X	X	X	X	X	X (includes patient info sheets)			X
CDC "Facts about personal cleaning and disposal of chemically-contaminated clothing"	http://www.bt.cdc.gov/planning/personalcleaningfacts.asp	Public fact sheet about self-decontamination					X						X	
ChemIDPlus	http://chem.sis.nlm.nih.gov/chemidplus	National Library of Medicine chemical identification database						X						

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
Chemical Transportation Emergency Center (CHEMTREC)	http://www.chemtrec.org	CHEMTREC® is part of the American Chemistry Council and maintains a **24/7 public service hotline for emergency responders: 1-800-424-9300**							X					
Coast Guard CHRIS manual	http://www.chrismanual.com	First responder database. Searchable by chemical name, color, odor, physical state, behavior in water.		X	X	X		X	X	X				
Department of Transportation, "2000 Emergency Response Guidebook"	http://hazmat.dot.gov/gydebook.htm	Contains emergency response protocols for specific chemicals and chemical classes including fire and explosion hazards, evacuation perimeters, and first aid.				X		X	X	X				
Dupont "SuitSmart" hazard assessment database	http://personalprotection.dupont.com/en/productServices/suitsmart/index.shtml	PPE selection tool (Secondary reference - Dupont PPE home page) http://personalprotection.dupont.com/en/index.shtml				X			X					
EPA chemical fact sheets	http://www.epa.gov/chemfact	Office of Pollution Prevention and Toxics chemical fact sheets	X (abbreviated)					X						
EPA Environmental test methods	http://www.epa.gov/Standards.html							X	X					
EPA "Extremely hazardous substances (EHS) chemical profiles and emergency first aid guides"	http://yosemite.epa.gov/oswer/ceppoehs.nsf/EHS_Profile?openform	First aid and physical property information						X	X	X				
EXTOXNET	http://extoxnet.orst.edu/ghindex.html	Cooperative effort of several universities. Houses information profiles for roughly 200 different pesticides.	X	X	X			X						
IPCS INCHEM	http://www.inchem.org	International chemical safety sheets (Also see NIOSH Int'l chem safety cards)	X		X	X	X	X	X	X	X			
IPCS INTOX	http://www.intox.org/databank/index.htm	Poison information and medical treatment guidelines	X	X	X					X	X			
Merck Index	http://products.camsoft.com/themerckindex.cfm	Chemical information and identification						X						
MSDS Solutions	http://www.ilpi.com/msds/index.html	Contains links to access over 1,000,000 Material Safety Data Sheets (MSDSs).		X	X	X		X		X				

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
MSDS-Vermont SIRI Index	http://hazard.com/msds	Online searchable database offers MSDS information as well as toxicology reports.		X	X	X		X		X				
National Safety Council "Chemical Backgrounders"	http://www.nsc.org/library/chemical/chemical.htm	Chemical-specific fact sheets for about 100 common industrial chemicals and heavy metals.		X				X						
New Jersey "Right to Know" Fact Sheets	http://www.state.nj.us/health/eoh/rtkweb/rtkhsfs.htm	Public fact sheets for nearly 2,000 industrial chemicals, including some CWAs.		X	X	X						X		
USFA Hazardous Materials Guide	http://www.usfa.fema.gov/fire-service/hazmat/hazmatguide/hmgfr3.shtm	US Fire Administration - chemical response fact sheets			X			X	X	X				
NIJ First responder chem/bio equipment decontamination	http://www.ojp.usdoj.gov/nij/pubs-sum/197978.htm	National Institute of Justice equipment decontamination guide					X		X					
NIJ Guide for the Selection of Personal Protective Equipment for Emergency First Responders	http://www.ojp.usdoj.gov/nij/pubs-sum/191518.htm	National Institute of Justice First Responder PPE guide - chemical warfare agents and toxic industrial materials				X			X					
NIOSH Manual of analytic methods	http://www.cdc.gov/niosh/nmam	Methods for sampling and analysis of contaminants in air, and in the blood and urine for occupational exposures						X	X					
NIOSH - Medical tests for OSHA substances	http://www.cdc.gov/niosh/nmed/medstart.html	Specific medical tests published in the literature for OSHA regulated substances						X	X		X			
NIOSH "Pocket Guide to Chemical Hazards"	http://www.cdc.gov/niosh/npg/npg.html	Condensed general industrial hygiene information on several hundred chemicals/classes. Does not include CWAs.		X	X	X		X	X	X				
NIOSH "International Chemical Safety Cards"	http://www.cdc.gov/niosh/ipcs/nicstart.html	Safety cards for 4,300 different industrial chemicals. Does not include CWAs.		X	X			X		X				
NOAA - CAMEO	http://www.epa.gov/ceppo/cameo	First responder database - includes chemical ID and properties, fire fighting information, health hazards, PPE, first aid. Note: Download database.		X	X	X	X	X	X	X				

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
NOAA "Chemical Reactivity Worksheet"	http://response.restoration.noaa.gov/chemaids/react.html	National Oceanic and Atmospheric Administration tool for assessing chemical reactivity (download database)						X	X					
NPIC Pesticide fact sheets	http://npic.orst.edu/npicfact.htm	National Pesticide Information Center public and technical fact sheets on 30+ pesticides	X (abbreviated)		X							X		
OSHA chemical sampling methods	http://www.osha.gov/dts/chemicalsampling/toc/toc_chemsamp.html	Searchable database for chemcial sampling in occupational environments						X	X					
State of Missouri "Information for Medical and Public Health Professionals"	http://www.dhss.state.mo.us/BT_Response/Chem_Med.htm	Color-coded links for Biological (blue), Chemical (green), and Radiological (red) Internet resources	X	X	X			X		X	X			
Virtual Naval Hospital	http://www.vnh.org	Medical treatment information - chemical, nuclear, and biological warfare agents	X		X					X	X			
A.2: Technical toxicologic information sites														
CDC / ATSDR "Toxicological Profiles"	http://www.atsdr.cdc.gov/toxpro2.html	261 listed hazardous substances found at National Priorities List sites. Lengthy profiles with complete literature review. Does not include most CWAs.	X	X				X				X		
ChemFinder	http://chemfinder.cambridgesoft.com	Searchable database - chemical-physical properties of thousands of chemicals as well as links to MSDS data, regulatory, and+C46 tox information.						X						
Cleanup Levels.com "Hazardous waste site cleanup levels"	http://www.cleanuplevels.com	Federal and state guidance documents and values for cleanup of hazardous waste		X										
EPA Acute Exposure Guideline Levels (AEGLs)	http://www.epa.gov/oppt/aegl/chemlist.htm	Acute exposure guidelines for chemicals released to air.		X										
EPA 2004 Drinking Water Standards and Health Advisories	http://www.epa.gov/waterscience/drinking/standards/dwstandards.pdf	A list of drinking water standards for both adults and children, including 1- and 10-day health advisory exposure guidelines		X										

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
EPA "Integrated Risk Information System"	http://www.epa.gov/iris	A database of human health effects for hundreds of common industrial chemicals. Addresses chronic health hazards only.	X					X						
ERGs/TEELs:	http://www.eh.doe.gov/chem_safety/tools.html	Emergency response exposure guidelines		X					X					
TEELs - derivation	None	Journal article: "*Derivation of temporary emergency exposure limits* ," Craig et al., J. of Applied Toxicology 20:11-20, 2000		X					X					
National Library of Medicine "TOXNET"	http://toxnet.nlm.nih.gov	A researcher-oriented cluster of databases on toxicology, hazardous chemicals and related information, e.g., the Hazardous Substance Data Bank (HSDB)	X	X	X	X	X	X		X	X			
NIEHS National Toxicology Program "Chemical Health and Safety Data"	http://ntp-server.niehs.nih.gov/Main_Pages/Chem-HS.html	Includes information on chemicals studies by the NTP. Very similar in layout and content to MSDS data.	X	X	X	X		X	X	X				
NIEHS National Toxicology Program "Report on Carcinogens"	http://ntp-server.niehs.nih.gov/NewHomeRoc/AboutRoC.html	Link to the online version of the "10th Report on Carcinogens." Similar to ATSDR toxicological profiles but focuses on cancer health effects.	X											
SRC Environmental Fate database	http://www.syrres.com/esc/efdb.htm	Syracuse Research Corp. environmental fate database includes information on biodegredation, chemical fate and properties						X						
A. 3 Information on WMD agents only														
CDC WMD emergency room procedures	http://www.cdc.gov/nceh/demil/articles/initialtreat.htm	Emergency room procedures in chemical hazard emergencies - a job aid (includes chemical warfare agents)			X				X	X	X			

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
eMedicine "Emergency Medicine NBC"	http://www.emedicine.com/emerg/WARFARE__CHEMICAL_BIOLOGICAL_RADIOLOGICAL_NUCLEAR_AND_EXPLOSIVES.htm	Commercial site used by many ED physicians for health effects information. Warfare link contains information on 44 chemical, biological, nuclear, and explosive related topics	X		X					X	X			
Personal Protection and Chemical or Biological Terrorism, Frequently Asked Questions	http://www.stimson.org/cwc/persprot.htm	Henry L. Stimson Center, Chemical and Biological Weapons Nonproliferation Project - Chem/Bio FAQs				X						X		
US Army "Center for Health Promotion and Preventative Medicine"	http://www.cma.army.mil/home.aspx	Includes both detailed and general chemical fact sheets for 24 of the most common CWAs.	X	X	X	X		X		X				
US Army Office of the Surgeon General "Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries (FM 8-285)"	http://www.globalsecurity.org/wmd/library/policy/army/fm/8-285/index.html PDF VERSION: http://www.nbc-med.org/SiteContent/MedRef/OnlineRef/FieldManuals/FM8_285/new/toc.pdf	Link to online version of "Field Manual 8-285," a comprehensive military guidance for conventional and non-conventional chemical injuries	X		X	X	X	X		X	X			
US Army "Guidelines for mass casualty decontamination - Terrorist chemical incident"	http://hld.sbccom.army.mil/cwirp/cwirp_guidelines_mass_casualty_decon_download.htm	First responder guidelines for decontamination					X		X					X
US Army Soldier and Biological Chemical Command "Homeland Defense Office Information Products"	http://hld.sbccom.army.mil/ip/bca_gr.htm	This site has reports and fact sheets geared to improve the response, preparedness and capability of federal, state and local emergency responders. A particularly good site for PPE and detector equipment for CWAs as used by the military.				X	X	X						X
US Army WMD field manuals	http://www.globalsecurity.org/wmd/library/policy/army/fm	One-stop site for Army field manuals on chemical, nuclear, and biological warfare agents	X	X	X	X	X	X	X	X	X			X
Veterans Administration Clinical Guides, "Biological, Chemical, and Radiation Induced Illnesses"	http://www.oqp.med.va.gov/cpg/BCR/BCR_Base.htm#	Pocket card clinical guides for treatment of biological, chemical, and rad. exposures							X	X	X			
Virtual Naval Hospital - Decontamination fact sheets	http://www.Vnh.org/CHEMCASU/08Decontamination.html#Chemical	Military decontamination information					X			X	X			

SECTION B: Resource Links

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
Canadian Centre for Emergency Preparedness	http://www.ccep.ca	This non-profit organization provides preparedness resources to individuals, communities, and organziations. Includes links to useful document templates, such as generic exercise evaluation forms.										X		X
CDC/ATSDR "Managing Hazardous Material Incidents"	http://www.atsdr.cdc.gov/mhmi.html B72	A multi-volume reference that includes medical management guidelines, as well as planning guidelines for emergency responders and hospital emergency rooms.	X (abbreviated)	X	X	X	X	X	X	X	X (includes patient info sheets)			X
Department of Energy "Chemical Safety Program"	http://www.eh.doe.gov/chem_safety/tools.html	Includes Temporary Emergency Exposure Limits (TEELs) and Emergency Response Protection Guidelines (ERPGs) for 2,300 industrial chemicals and CWAs. These are planning guides, not standards.		X				X						
Department of Homeland Security "Ready.gov"	http://www.ready.gov	The official readiness and awareness site of the US Government. Includes generalized information for the public on preparedness, health hazards, and sheltering.								X		X		X
Department of Justice "Office for Domestic Preparedness Information Clearinghouse"	http://odp.ncjrs.org	Virtual library of information and resources on domestic preparedness, counter-terrorism, and WMD. Although not very useful for emergent situations, it is an excellent resource that will search through collections of fact sheets, books, articles, monographs, and newsletters.				X (link)			X (link)	X (link)	X (link)	X (link)		X (link)
Disabilities, "Disaster Preparedness for People with Disabilities"	http://www.disabilityresources.org/DISASTER.html	Public information sites; Also see http://www.jik.com/disaster.html										X		X
EPA "Chemical Emergency Preparedness and Prevention Office"	http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/index.html	EPA programs devoted to chemical emergency response and preparedness, including Risk Management Plans, Emergency Right-to-Know, regulatory issues, and accident prevention.							X			X (link)		X

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
Federal Emergency Management Agency "Toolkit for Managing the Emergency Consequences of Terrorist Incidents"	http://www.fema.gov/onp/toolkit.shtm	A series of planning guidelines and preparedness checklists for all-hazard responses and management of terrorist incidents. It is generic and states/localities are encouraged to modify for their jurisdiction.				X	X		X	X				X
Hazmat for Healthcare	http://www.hazmatforhealthcare.org	Tools for addressing hazardous materials incidents at hospitals, clinics, and other healthcare locations.												X
Hazmat Laptop	http://www.duke.edu/~pirre001/hazmatlaptop.html+B83	Links to multiple web resources useful for first responders		X	X	X			X	X	X			
Mental Health - "OVC Handbook for Coping after Terrorism: A Guide to Healing and Recovery"	http://www.ojp.usdoj.gov/ovc/publications/infores/cat_hndbk/welcome.html	Office for Victims of Crime, Dept of Justice.										X		X
National Library of Medicine "Chemical Warfare Agents"	http://www.sis.nlm.nih.gov/Tox/ChemWar.html	Excellent compilation of information related to chemical warfare agents. Many links to other areas of interest from government and private sources, including the harder-to-find government reports.	X		X				X		X	X		X
National Library of Medicine "Specialized Information Services - Chemical Information"	http://www.sis.nlm.nih.gov/Tox/Toxmain	Gateway to many databases and resources on toxicology and environmental health, including Toxnet and Haz-Map.	X	X	X			X						
NIOSH "Chemical Safety"	http://www.cdc.gov/niosh/topic/chemical-safety	Links to NIOSH databases on chemicals, analytic methods, chemical safety cards and others.		X	X	X			X	X	X			
NIOSH databases	http://www.cdc.gov/niosh/database.html	Link to NIOSH databases and other resources		X		X			X					
NIOSH "Emergency Preparedness for Business"	http://www.cdc.gov/niosh/topics/prepared	Resources for businesses in dealing with, or preparing for, a terrorism event. Topics include facility protection, emergency contacts, business emergency management planning and related resources.							X					X

Agency	URL	Summary	Toxicology	Exposure Guidelines & Standards	Acute hazards, signs, symptoms	PPE	Decon	Physical Properties	Emergency Response	First aid / Emergency Treatment	Med. Treatment Guides - Health Profs	Public FAQs	Other languages	Planning & Preparedness
NIOSH "Emergency Response Resources"	http://B82www.cdc.gov/niosh/topics/emres	Links to dozens of emergency response resources and chemical information.		X	X	X	X	X	X	X				
OSHA - Emergency Resposne	http://www.osha.gov/SLTC/emergencyresponse/index.html	OSHA resources for workplace emergencies. Covers first and second response, decontamination and detection equipment for CWA incidents, and other useful topics.				X			X		X			X
Pets, livestock - disaster preparedness	http://www.redcross.org/disaster/safety/animal.html http://www.cvmbs.colostate.edu/clinsci/wing/aavdm/aavdm.htm www.avma.org/disaster	American Red Cross, Disaster Preparedness Info for Pet owners; American Academy on Veterinary Disaster Medicine; American Veterinary Medical Association - Disasters										X		X
Public Emergency Preparedness Guides (multi-lingual), Denver, CO	http://www.denvergov.org/jump_emergency.asp	Also available in Spanish, Chinese, Russian, and Vietnamese										X	X	X
Public information for chemical emergencies, American Red Cross	http://www.redcross.org/services/disaster/0,1082,0_581_,00.html	Public information guides to various types of chemical emergencies										X		X

CDC Workshop
"Risk Communication Needs in a Chemical Event"

ATTACHMENT K

HANDOUTS FOR BREAKOUT GROUPS

(1) Audience Breakout Groups
Concept for all breakout groups
From your perspective, what are the vital risk communication needs in a chemical event?

Questions for the audience panel and breakout group attendees:
(Audiences: public, press, health care providers, local agencies). Refer to audience core competencies and benchmarks and fact sheet templates (local health dept., medical provider, and public/press) and discuss as needed.

1. If there were an appendix to the benchmarks with special channels or strategies for reaching sub populations, what pointers would you suggest for this appendix?
2. What additions would you make to the draft templates or core competency documents?
3. What deletions would you make to the draft templates or core competency documents?
4. What changes should be made to the draft fact sheet templates or draft core competencies documents?
5. What reference sources and references about chemical terrorism or releases have you found useful for these several audiences?

Additional considerations for the audience panel and breakout group attendees:

(Consider all audiences: public, press, health care providers, first responders/other occupationally exposed workers, local health or environmental agencies)

1. What are the key information needs for each audience?
2. What specific communications methods and materials would you recommend for each audience for:
   a. pre-event education;
   b. emergency response;
   c. short- and long-term recovery; and
   d. mitigation
      i. Why?
      ii. Are these methods and materials currently available and in use?
      iii. What information is available on the evaluations of these materials?
      iv. What data is available on each audience that can be helpful to develop methods and materials?
3. What approaches are recommended for reaching special populations of concern, e.g., non-English speakers/readers, African-Americans, Native Americans, low-literacy groups, elderly, and the geographically isolated?

4. Sources and references:
   a. What sources and references do you recommend for information for each audience?
   b. Do you recommend any additions or deletions to the Information Source Matrix references?
   c. Where would members of your profession most likely turn first for chemical information and resources in:
      i. pre-event planning and preparedness;
      ii. emergency response;
      iii. short- and long-term recovery; and
      iv. mitigation?
      v. Why?
5. What approach do you recommend for keeping material updated and distributed?

Core Competencies and Benchmarks (for Audience Panel)

"Agency" refers to any agency or department with a responsibility for risk communication in a chemical terrorism event.

10. With regard to the crisis and response phases, PIOs and scientific and community spokespersons will be familiar with risk communication concepts and techniques as they apply to oral, written and visual communication. (Agency/interagency, Audience panel)	10. PIOs, scientists, elected officials and emergency managers will have completed didactic and experiential trainings.
11. Anticipate the need to monitor and respond to rumors. (Agency/interagency, Audience panels)	11. Have and practice a staffing plan to monitor media reports of rumors and a protocol for responding to them.
12. PIOs, agency leadership and scientists will be able to convert technical fact sheets into press releases and radio spots in a timely fashion. (Audience, Agency/interagency panels)	12. Have a protocol describing how the PIOs, department/agency leadership, and scientists summarize toxicological information and develop public guidance to expedite review and approval.

13. Scientific staff will use agreed-upon reference materials for summarizing information. (Audience, Agency/interagency panels)	13. Have access to the agreed upon reference materials (See Information Source Matrix) and be able to describe their appropriate use. Update reference materials regularly.
14. Agencies will have immediate electronic and hard copy access to risk communication facts for relevant audiences. Agencies will ensure that public communications will include information on appropriate Internet access to risk bulletins. (Audience, Agency/Interagency panels)	14. Prepare secure Web-based fact sheets and streaming audio presentations that can be downloaded or faxed for the following agents: (specify) Internet access information to risk bulletins is readily available in all forms of media.
15. For each mode of delivery, the department/agency should know the relevant community opinion leaders/ gatekeepers on whom they can rely to help propagate risk communication. (Audience panel)	15. For each mode of delivery, list the likely type of opinion leaders / gatekeepers on whom one can rely to help propagate risk communication, and how to contact them (e.g., management, union, school principals, community leaders, radio, TV and Internet providers of news).
16. The department/agency will communicate with non-English speakers in the community. (Audience panel)	16. List the languages (including sign language) in use in the jurisdiction and the contact numbers for those able to translate, verbal, written and visual messages into those languages. Establish "As-Needed" contracts with these resources.
19. Agencies will be able to convey accurate and clear information to the groups that need them in a practice-based, timely fashion. (Audience panel)	19. In actual events, an assessment shows that risk communication is/has been accurate, timely and understandable.

(2) Interagency Breakout Groups
Concept for all breakout groups

From your professional perspective, what are the vital risk communication needs in a chemical event?

Questions for the Interagency panel and breakout groups:

Refer to Interagency/agency core competencies and benchmarks and discuss as needed.

1. Are any additions needed to the core competencies and benchmarks, or templates?
2. Anything to delete from the core competencies and benchmarks, or templates?
3. Anything to change in the core competencies and benchmarks, or templates?
4. If there was an appendix on prioritization of chemical/scenario risks, how should health departments prioritize chemical scenarios and modes of delivery? (see core competencies 1 and 3). Describe the federal efforts as they relate to risk prioritization of chemicals/scenarios. Could state/local agencies use federal data for local risk characterization?
5. If there was an appendix on Interagency training what points should be made?
    a. With respect to interagency familiarization and partnering, what are your key recommendations for cross-training or basic awareness training?
    b. Do you suggest specific training for public health staff? (e.g., Hazwopper training, Incident Command training (core competency 7)
    c. What training is available? How could it be accessed?
6. If there was an appendix on mutual aid, what specific types of mutual aid should be recommended between agencies?
7. What formal MOUs might be drafted between agencies for mutual aid, (see core competencies 4 and 5), e.g., MOUs with WMD Civil Support Teams?

Additional Considerations for the Interagency panel and breakout groups:

(Consider all audiences: public, press, health care providers, first responders/other occupationally exposed workers, local health or environmental agencies)

1. What are the key information needs for each audience?
2. What specific communications methods and materials would you recommend for each audience for:
    a. pre-event education;
    b. emergency response;
    c. short- and long-term recovery; and
    d. mitigation
        i. Why?
        ii. Are these methods and materials currently available and in use?
        iii. What information is available on the evaluations of these materials?
        iv. What data is available on each audience that can be helpful to develop methods and materials?

3. What approaches are recommended for reaching special populations of concern, e.g., non-English speakers/readers, African-Americans, Native Americans, low-literacy groups, elderly, and the geographically isolated?
4. Sources and references:
    a. What sources and references do you recommend for information for each audience?
    b. Do you recommend any additions or deletions to the Information Source Matrix references?
    c. Where would members of your profession most likely turn first for chemical information and resources in:
        i. pre-event planning and preparedness;
        ii. emergency response;
        iii. short- and long-term recovery; and
        iv. mitigation?
        v. Why?
5. What approach do you recommend for keeping material updated and distributed?

Core Competencies and Benchmarks (for Interagency Panel)
"Agency" refers to any agency or department with a responsibility for risk communication in a chemical terrorism event.

Core Competency	Benchmark
1. For various modes of delivery, the agency will establish relationships with likely partners in the crisis and recovery phase. Agency partners will clarify their roles with regard to risk communication. Agency partners will work with each other and with relevant opinion leaders/gate keepers in the community. (Agency/interagency panel)	1. Agencies will maintain partnerships with all relevant response agencies and individuals through electronic information sharing, conference calls, meetings and other "stakeholder" activities such as preparedness exercises. For each mode of delivery (explosion, environmental release, consumer product tampering, food tampering etc.), list the responsible local, state and federal agencies that would be involved as well as their 24/7 contact numbers.
2. Scientific staff of agencies will be able to disseminate information and prepare fact sheets on chemical agents according to an agreed upon template in a timely fashion. (Agency/interagency panel)	2. A detailed team structure and procedure for quickly acquiring and disseminating technical information, and preparing fact sheets for different audiences according to agreed upon templates will be developed and rehearsed. MOUs will be completed with regard to likely cooperating agencies (considering various modes of delivery).

3. Agencies will give priority to local facilities and operations that may be subject to accidental disasters. (Agency/interagency panel)	3. Agencies will consider and practice likely local accidental release scenarios.
4. Agency scientists will have established access to "surge capacity" assistance from others with regard to acquiring and summarizing information. (Agency/interagency panel)	4. Have MOUs with adjacent states, other state, local and federal agencies, academia and private sector entities for voluntary mutual aid and will have conducted tabletop drills.
5. Public information officers (PIOs) will have access to "surge capacity" assistance from other agency's PIOs with regard to their functions. (Agency/interagency panel)	5. Have MOUs with other agencies for mutual aid and will have conducted and/or participated in table top drills.
6. Agency staff will be able to respond 24/7 to support the state's crisis response if necessary. (Agency/interagency panel)	6. Have plans for, and rehearse, a "shift" system for working and a protocol for changing shifts.
7. Agencies will know how the public health function fits into the "Incident Command" structure (ICS), what assets they have to contribute, and how to communicate within the chain of command. (Agency/interagency panel)	7. Have an organization chart for the structure of the "public health functional group" and how its activities contribute to the "planning/intelligence" function, "worker health and safety," and "public information" functions. Train and exercise staff in operating in ICS.
8. Agencies will know how to communicate with stakeholders, including community leaders, the news media, and the Health Alert Network (HAN), during the crisis and recovery phases. (Agency/interagency panel)	8. Have a protocol in place involving other likely agencies to deal with conflict, and rehearse the protocol. This may involve community or labor/management advisory groups, special newsletters etc., as they relate to: (a) prolonged clean ups or (b) epidemiological studies.

9. Agencies will collaborate to deliver consistent, coordinated public health information that reduces public anxiety and prevents exacerbating existing mental health problems. (Agency/interagency panel)	9. Agencies (e.g., public, mental health, education, industrial relations departments) as well as the Red Cross, and volunteer organizations (e.g. citizen core councils) will have a mutual rehearsed plan which includes the propagation of sound risk communication through preset opinion leaders such as the clergy, school officials, union leaders, ethnic leaders, employers, private sector leaders, mental health professionals, physicians, and service organizations.
10. With regard to the crisis and response phases, PIOs and scientific and community spokespersons will be familiar with risk communication concepts and techniques as they apply to oral, written and visual communication. (Agency/interagency, Audience panel)	10. PIOs, scientists, elected officials and emergency managers will have completed didactic and experiential trainings.
11. Anticipate the need to monitor and respond to rumors. (Agency/interagency, Audience panels)	11. Have and practice a staffing plan to monitor media reports of rumors and a protocol for responding to them.
12. PIOs, agency leadership and scientists will be able to convert technical fact sheets into press releases and radio spots in a timely fashion. (Audience, Agency/interagency panels)	12. Have a protocol describing how the PIOs, department/agency leadership, and scientists summarize toxicological information and develop public guidance to expedite review and approval.
13. Scientific staff will use agreed-upon reference materials for summarizing information. (Audience, Agency/interagency panels)	13. Have access to the agreed upon reference materials (See Information Source Matrix) and be able to describe their appropriate use. Update reference materials regularly.

14. Agencies will have immediate electronic and hard copy access to risk communication facts for relevant audiences. Agencies will ensure that public communications will include information on appropriate Internet access to risk bulletins. (Audience, Agency/Interagency panels)	14. Prepare secure Web-based fact sheets and streaming audio presentations that can be downloaded or faxed for the following agents: (specify) Internet access information to risk bulletins is readily available in all forms of media.
21. Agencies involved with prolonged clean up or follow up epidemiological studies will share information in a timely, intelligible, practice-based, and accurate way. (Agency/interagency panel)	21. A survey or other methods for contacting stakeholders (including vulnerable subgroups) will show that the developed protocol is being followed and that stakeholders are satisfied.

(3) Occupational Health Breakout Group
Concept for breakout group

From your perspective, what are the vital risk communication needs in a chemical event?

Questions for the Occupational panel and breakout group:

(Audiences: Professional first responders, first receivers (medical), volunteers, employees in a chemically-contaminated workplace, and contractors). Refer to occupational health core competencies and benchmarks and fact sheet templates (first responder and general worker) and discuss as needed.

1. Are any additions needed to the templates or core competencies?
2. Anything to delete from the templates or core competencies?
3. Anything to change in the templates or core competencies?
4. Are there other occupational audiences of concern, in addition to those noted?
5. If there was a specific appendix on methods, what specific communications methods and materials would you recommend for each audience for: a) pre-event education; b) emergency response; c) short- and long-term recovery; and d) mitigation? Why?
6. What prepared material is available for delivery to occupational audiences?
7. What sources and references do you consider to be most reliable for information for each occupational audience?
8. Are there particular occupational settings that should be considered as high risk and receive additional pre-planning for risk communication (e.g., airports, postal, emergency rooms)? How should agencies prioritize worksites at risk? (see core competency 18)

Additional Considerations for the Occupational panel and breakout attendees:

(Audiences: Professional first responders, first receivers (medical), volunteers, employees in a chemically contaminated workplace, and contractors)
1. Are you aware of any key information needs that differ among these occupational audiences?
2. What data is available on each audience that can be helpful to develop methods and materials?
3. What are the key agencies or organizations to collaborate with in delivery of information to these audiences?
4. What role does public health play in worker protection?

Core Competencies and Benchmarks

Preparatory Phase	
Preparatory Phase 17. Agencies will provide guidance on worker health and safety on an ongoing basis. First responders, first receivers, contractors, skilled support personnel and volunteers in work settings most likely to be directly or indirectly impacted are a priority for receiving guidance in a practice-based timely fashion. This approach anticipates that risk communication for workers assigned duties within controlled access hazard zones at a chemical event will not only need information about a chemical agent but other essential safety and health information to make informed decisions about their own safety and well-being. (Occupational health panel)	17. (Appendix 3) A. Risk communication needs for all workers will be determined and are consistent with OSHA hazard assessment and worker training requirements. (See Attachment: Occupational Health Risk Communication Issues) B. Risk communication protocols and templates are used to transfer essential information to all workers in a uniform, timely fashion. C. Actively recruit/involve the regulatory agency responsible for occupational safety and health for your locale, as a technical assistance and resource asset for risk communication. D. Roles and responsibilities for worker health and safety within the incident command system are defined. E. MOUs are implemented to facilitate successful risk communication across all aspects of a chemical event (pre-event, crisis, and post event). F. Standard operating procedures will be developed with personnel trained to respond to emergency events and to worker health concerns.
18. Agencies responsible for worker health and safety will target early assistance to organizations most likely to be affected by chemical terrorism or chemical disasters. (Occupational health panel)	18. Organizations and sites identified as potential vulnerable worksites, such as airports, subway systems, major tourist attractions, chemical manufacturing and transportation firms, hospitals, etc., have established risk communication plans in conjunction with emergency response plans. Responsible agencies will have MOUs with organizations (labor and management) about risk communication in the crisis and recovery phases.

Crisis Phase 20. Agencies will be able to provide occupational health guidance to first responders, first receivers, contractors and volunteers in a practice-based timely fashion. (Occupational health panel)	20. Agencies will have an MOU on who is responsible for disseminating and maintaining key occupational health information, (e.g., chemical fact sheets, personal protective equipment, decontamination, etc.), that this information is readily available (command centers, work sites, on the Web, and for e-mailing and faxing when needed).
Recovery Phase 22. Agencies will be able to provide practice-based guidance on worker health and safety on an ongoing basis. (Occupational health panel)	22. First responders, volunteers, contractors, and other workers involved in the recovery phase will be shown to have avoided unnecessary risk.

Occupational Health Risk Communication Issues

This document outlines concepts for consideration for risk communication needs of workers: the informational needs for target audience(s); the organization and presentation of information; the ones who make these determinations; the topics to be covered and their scope; and other issues that emerge from such consideration.

Simply stated, the goal is: Through effective risk communication, workers can complete their assigned responsibilities without detrimental outcomes to their own safety and well-being.

1. **Define the worker populations and their health and safety information needs for pre-event, crisis, and recovery phases of a chemical event.**

   First responders: fire, police, EMS
   Skilled support personnel: environmental cleanup, heavy equipment operators, contractors
   Specialists: public health, occupational safety and health
   First receivers: emergency room, healthcare workers, housekeeping, etc.
   Workers: those most likely to be affected by a chemical event {e.g., transportation (airports, regional transit, etc.), tourist destinations}
   Public: (consider here workers' families, who receive information about an event through the media)

   Assumption: Only those workers who cross into controlled access areas (hazard zones) are targeted for risk communication via fact sheets.
   Question: Is the message for workers outside controlled access areas substantially different from the needs of the public to require a separate fact sheet?

2. **Provide a uniform framework for delivery of essential health and safety information to worker populations.**

    Applicability of the OSHA Hazardous Waste Operations and Emergency Response Rules (1910.120) in defining risk communication needs
    Emergency response plan
    Pre-emergency planning and coordination with outside parties
    Personnel roles, line of authority, training, and communication
    Emergency recognition and prevention
    Safe distances and places of refuge
    Site security and control
    Evacuation routes and procedures
    Decontamination
    Emergency medical treatment and first aid
    Emergency alerting and response procedures
    Critique of response and follow-up
    PPE and emergency equipment
    Site Safety and Health Plan

3. **Define the role of public health in providing guidance on worker health and safety.**
    Notification procedures
    Terrorism preparedness: toxicology, epidemiological services
    Training for emergency events, including terrorist attacks
    Public health staff response to worker health and safety concerns
    Facilitating union and worker participation in planning and recovery phases
    Accountability mechanisms for assuring compliance with public health recommendations
        for worker health and safety

4. **Clarify the role of OSHA in providing guidance on worker health and safety.**
    Terrorism preparedness
    Training for emergency events, including terrorist attacks
    Response to worker health and safety concerns
    Facilitating union and worker participation in planning and recovery phases
    Accountability mechanisms for assuring compliance with public health recommendations
        for worker health and safety
    Technical assistance: emergency response plan/site safety and health plan; personal
        monitoring; selection decisions for PPE and respiratory protection

5. **Develop appropriate risk communication information for worker health and safety.**
    Hazard assessment
    Hazard communication (chemical)
    PPE
    Respiratory protection
    Medical surveillance
    Confined spaces
    Safety monitoring: site-specific hazards

'Hazard Communication' – all hazards (essential information)
Exposure potential
Self-protection: selling the need for voluntary compliance
Limiting contamination
Decontamination
Managing the Message
Simplicity
Expectations
Listening to issues/concerns
Follow-up

6. Other Issues

- Labor/Management teams as part of the planning effort.
- Specialists: developing a means to involve private sector EHS professionals as part of emergency plans (e.g., registries).
- "Surge capacity" for skilled-trades workers trained for chemical (terrorism-related) events.
    - o Access to essential information and data development through the ICS process.
    - o Monitoring data is an essential tool for developing decision matrices that ultimately tie to risk communication in the crisis phase of an event, plus the recovery phase.
- Data interpretations for risk communication, risk assessment, exposure outcomes, etc.

CDC Workshop
"Risk Communication Needs in a Chemical Event"

ATTACHMENT L

MEETING EVALUATION RESULTS

Meeting Evaluation Forms – Summary of Comments:

Comments to specific questions:

#4 – Degree to which the meeting purpose and objectives were accomplished:
- It never was apparent what the exact purpose and objectives of the meeting were.

#5 – Clarity and order of agenda items:
- Day 1 better organized; Day 2 weaker

#6 – Adequateness of time to discuss each agenda item or issue:
- Too much time; panels too large.

#11 – Use of small group discussion sessions (vs. only large sessions):
- More would be better

#14 – Degree to which all participants had the opportunity to comment:
- Exercise more facilitated care; some panel members needed to be reined in.

#15 – Degree to which most/all participants did comment and voice their opinions:
- Turned into the war of the clashing egos.

#15, 16 – I think the initial info was not clear to everyone. Once it was, more discussion ensued.

#17 – Relevance of the meeting to your work:
- The meeting should have been highly relevant to my work as a state-level communication professional, but it was not. Bogged down in scientific nitpicking. No sense of urgency in getting the work done.

#19 – Meeting materials:
- OK, but initially could have been clearer – references/case studies

#20 – Meeting length:
- Too short, need another day
- Too long for agenda
- Second day repetitive

#26 – Hotel – overall service:

- Food at hotel is too $ for state travel.

General comments and suggestions:

Portions seemed a bit unfocused, despite all the obvious preparation.
Seems like the discussion could have connected with/built upon at least some of the work that's already been done re biological emergency preparedness – especially in the area of risk communication.

During one of the breakout sessions, I was a little disturbed by some of the communications professionals who claimed it was a good thing that they had less – rather than more – information.
I believe it is absolutely possible for a communicator to be steeped in technical information, while at the same time sorting it out for the general public.
I found some of the physicians' attitudes troubling. Communications is not an ancillary tack on initiative during a crisis – it is quite possibly more important than a plethora of technical jargon.

The first day of the meeting was much more productive than the second day. The purpose and ultimate use for the benchmarks and competencies discussed were not clear to me, and I was unable to obtain clarification from meeting organizers on this. Will these become part of the CDC focus Group Area Benchmarks? HRST? Healthcare Worker Competencies?

Lack of respect among different roles/areas. If we can't respect each other, there is no hope for public health!
The lack of focus concerning goals and objectives. These were not clear.
The early explanation of core competency and benchmarks was obscure. I had no idea what anyone was trying to get at with these –
Are we writing a plan?
Is each state to write a plan?
Are we required to address core competencies and benchmarks?
While the change to network and exchange viewpoints are always good, this workshop lacked specific focus and objective relevance.
Panels first day were too long and structured. Not nearly enough time for individual input. Better second morning. Again, needed a more specific focus, path, objectives, and outcomes.
Perhaps next time, just have science talk about communications since they have no value for communicators/PIOs! Only they are correct!

Should get professional facilitators to better keep discussions on topic.
I think that focus on "communications" issues was not adequate. Too many people focused on very specific incidents and risk prioritization issues. This is a risk communication workshop. How do we use that info to improve our preparation for communications?
I think that there was too much focus on benchmarks vs. actually laying out communication needs, lessons learned, who the right people are to go to in case a high-risk communication situation presented itself.

Not enough discussion on interagency communication/lead issues.
I got a lot out of the very first speaker from the CDC (woman who discussed CDC response to anthrax-Brentwood situation).
Needed more communication-focused presenters and panelists.
Maybe more focus on roles – federal role in communicating vs. state and local government roles. What info should they share to expedite communications – who should take lead, how do you align yourselves to be most effective and consistent?
Better identify where people go for info and how to coordinate getting info to them.

Sessions didn't draw enough from participant's expertise/needs. Panels were too big – too many speakers. Day 2 – too much talk outside of "communication" issues. Too little discussion on templates for fact sheets and scientific basis/resources. Would have liked more discussion on actually framing an information sheet based on templates. Also, how to evaluate an information sheet.
The purpose of using the core competencies/benchmarks as discussion topics was unclear.
Best/most useful discussions were on the actual templates and resources. Resource matrix is very useful.

It would have been helpful to have hired a moderator for the meeting. The topic often changed and did not follow the question being discussed. Additionally, resumes or bios for panel members could have been distributed in lieu of spending considerable time allowing them to introduce themselves.
Participant list should have been distributed prior to meeting.
I felt I understood the purpose of the meeting prior to attending. However, I think the focus shifted during the course of the meeting.
Obtain input from meeting participants for identifying which breakout groups will be conducted. Because some questions took so long to answer by the panels and often went off track, I feel that many participants may have been deprived of a chance to fully participate in the full group setting.

As scheduled, breaks were fine, however, delays in restarting the meeting led to schedules being condensed.
I appreciated the distribution of relevant software, databases by ATSDR.

The meeting and discussions tended to include many very legitimate issues of WMD response that were far beyond risk communication. The coordination of various agencies in a response is important, however, the focus on risk communication got lost too often. More direction back to risk communication would have been helpful.

I would like CDC to request that DOD provide a risk communication expert/POC to participate in current and future discussions/planning.
As expert as Sharon [Lee] is technically, she was sometimes too soft-spoken to actually hear.
I would like CDC to hold a similar workshop on pre-planning risk communication needs/considerations – that would help make crisis communication support/response more consistent and unified, particularly across geographic lines and within agencies involved.

An education session on DOD's role/authority in emergency response would have been useful. They may be reachback support, either via local military sites or from CSTs or medical response teams "living" within each military service. Do local/state responders know how to access them/activate them? Their capabilities? Etc.

CDC could develop a generic stakeholder list to assist locals in identifying them, possibly by event (a water event would involve certain stakeholders; an air event would involve others, etc.)

Could CDC create a subgroup of the ICTC where local or regional risk communication staff could discuss issues/challenges/successes, share them with each other, as well as ensuring information is shared with their counterparts in their own town, country, region, etc.?

Overall – excellent job of bringing us together!

Hopefully, each participant will get an email/phone notification re: workshop outcomes!

Comments from Minnesota Group:

(A) From an educator: Two ricin incidents overshadowed the workshop.
CDC staff (including the risk communicators) left the workshop to staff the Emergency Operations Center, and the FBI representative was often on the phone.

Several themes emerged.

(1) It was wonderful to be introduced to dedicated experts and colleagues across many disciplines. Could have used more time to focus and discuss competencies and areas of expertise, and to elaborate the implications and next steps.

(2) Differing organizational goals and perspectives were addressed.
"How much information can be shared and with whom" is a key discussion point. Assuming innocence or guilt is another key discussion point.

> FBI example – In an emergency, law enforcement staff look back to piece together what happened, while public health staff must look forward to see where the agent went. The witnesses, criminals, and victims may be the same people.
>
> Understand that terrorists are enemies, and their crimes are intentional. Need to expect the unexpected.

(3) Funding for chemical emergency preparedness is needed.

(4) PIO involvement is needed. Mixing public and professional communication needs occurred throughout the workshop. Risk communication help is available with CDCynergy and chemical help with ATSDR's ToxFAQs and ToxProfiles. Different institutional and cultural perspectives must be considered in all communications. "Do not withhold information" is a key public risk communication principle.

(5) Discussions on fact sheet templates and the proposed resource matrix led to more ideas. Should fact sheets be intended to be used as checklists to guide information that may be needed, or as required templates? Linking fact sheets to matrix references was seen as useful among

small group members. However, it would be useful to ask first responders what they use and why, as only a few of their commonly used resources are listed on current matrix. Many different databases exist across different professions.

**Important note from our PIO on risk communication – Do not withhold any information on antidotes, whether they are available or not – as it will create outrage. **

(6) Some unmet needs were identified. Occupational Health and Poison Control Center staff has not been addressed enough as a resource. Knowledge of resources and role integration across agencies could be addressed in training exercises. How can the reference information that is in use be kept updated and current? Not everyone has had Incident Management training. Stress and mental health is not often addressed.

(7) How to prioritize efforts was a common concern. An estimated 90% of risk from chemicals could be attributed to fixed sites and most dangerous chemicals (CST). Communication is essential to know what the local fixed-site risks are. Public health staff must work with Local Emergency Planning Commissions/fire departments to learn what they have in hand. Nationally, work continues on more than 200 chemicals to specify toxicological details.

(B) From the Division Director:
Too many speakers are federal. Too few are state and local who have actually been in the hot seat.

(C) From the CST representative:
..."To have a plan that will likely successfully stand the challenge of an actual CBR terror attack will require a more broad understanding of terrorism and the terrorist opponent. A CBR agent is a tool, one of many that can be used alone or in combination in the hands of an attacker. Response to such an event is a response to an ATTACK not a spill, leak or breach. To think otherwise is dangerous to both the responder and to the public. While I think that preparing for events (HAZMAT spills) covers a lot of the threat, I remain worried that terrorists really like to defy odds and statistics, and have alarming ways to end-run our preparatory plans. Putting a new cover sheet on a HAZMAT plan so it reads "Terrorism Plan" may produce false security. Nothing is going to be easy. We must do the hard work of risk/threat/vulnerability assessment and integration."